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The PENTATHLON

ELMER D. MITCHELL, Editor

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The Middle West Society of Physical Education

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The Health Counselor Plan for High Schools

ETHEL PERRIN

Staff Associate, American Child Health Association, New York City

(Mid-West Convention Address)

WHEN we open for discussion the subject of informational hygiene on the secondary school level, we have not much experience upon which to draw as there is comparatively little printed material at hand, nor have there been many conferences, with their follow-up reports, nor gathering together of

MISS ETHEL PERRIN

teachers in committee work; not even many resolutions from administrators, as to what should be done about the first of the seven educational objectives, namely, Health, set down some years ago by the Committee of the National Education Association on the Reorganization of Secondary Education.

When people in general began seriously to take an interest in health, they almost began in the right spot—the elementary school child, and have been obliged to take but four steps backward, to the pre-school child, the toddler, the baby and the pre-natal condition. This was doing better than much of our educational procedure, which has sometimes started with the university and gradually sifted down where it belongs. Physical Education is an example of this mistake. We now have fairly well standardized subject matter and methods in health habit formation from the beginning through the 6th grade, but after all, this is fairly easy because of home and school organization and general reasonableness and obedience of children. But with the increased freedom which begins in the junior high and becomes greater each year of school life, it is much more difficult to guide the behavior of pupils —and the end result of all health education must be behavior.

For the duration of this discussion, I will ask you to think of a school health program, in place of the much discussed "Health Education," and to think of it as a program reaching into every crack and corner of the school, rather than as a subject in the curriculum. With this idea well in mind, we may analyze such a program in two ways: A. according to its purposes; and B. according to its administration. If we think of its purposes, they are three: (1) Protection, (2) Correction, (3) Promotion.

The first one, Protection, includes medical and nursing service, all physical and mental examinations and all efforts made for safe environment. This reaches into several academic and administrative departments.

The second one, Correction, includes follow-up of all health examinations and adjustments of pupil schedules, and can only be effective through cooperation of every member of the staff.

And the third one, Promotion, includes every effort to give pupils a healthful daily school program and a sufficient amount of the kind of instruction to promote positive right attitudes and behaviors toward health problems. Again we reach into all departments.

Looked at from an administrative point of view, we have three different divisions and again they extend in all directions:

The first one is health service. This combines the services necessary to Protection

and Correction and sets out six divisions of the work in terms of administration:

(a) Health examinations
(b) Correction of defects
(c) Protection against communicable disease
(d) School sanitation and hygiene, including food service
(e) Hygiene of instruction
(f) Safety and first-aid provisions

The second one is Health Teaching and includes both specific and correlated subject matter courses, situations both during intra and extra-school activities and home cooperation. It is impossible to find a member of the staff who is not contributing here, whether consciously or not. These indirect contributions are the ever present "concomitant learnings" so graphically presented by Dr. Kilpatrick.

And the third one is Physical Education. Although these activities themselves do not permeate the class rooms, still if they are to make their full contributions to the health program, every member of the staff should realize their significance and stimulate the desirable type of activity through interest and cooperation.

The subject of this paper, "Health Teaching," falls into the second division of the administrative analysis of this whole program and is by far the least developed part of the present situation. Standards and procedures are set up and quite generally followed, in Health Service in all of its branches, and in Physical Education, but what to teach or how to teach it are two problems still unsolved. There are plenty of state and city outlines of hygiene, both personal and community, but most of them have the earmarks of being office desk productions, rather than having come from the laboratory—the class room. I call your attention, however, to a piece of work straight from the laboratory, built upon the solid foundation of teacher participation. I refer to a "Tentative Health Program—Junior High School," published by the Cleveland Board of Education. I particularly offer for your consideration the plan of organization for the making of this "outline" or "course of study," or as it is called, "Health Program." On its title page you see a junior high school committee composed of five teachers, one from each of five high schools in Cleveland. This committee is responsible to a central committee composed of nine people representing administration, research, medicine, supervision, home economics, general education, physical welfare and physical education. The smaller committee is only one of a number of such teacher committees, the others having to do with elementary grades. There is one added touch to this procedure—the city employed a health consultant, who guided the committee work and acted as technical expert. Such a set-up is right from every point of view and eliminates, as far as possible, chances of going astray. At the same time, it paves the way for an interested acceptance of the finished product because of widespread participation in its making.

It is interesting to trace back to the source material for the objectives and the methods for their development as set up in the Cleveland program. We find that in 1922, at Lake Mohonk, for the first time a group of physicians, nurses, scientists and educators, met to discuss health teaching problems and the report of this conference laid the foundation stone upon which standards in Health Education were built.

In 1923, in San Francisco, and in 1924, in Cambridge, similar conferences were held, and in their reports the recommendations became more specific, until in 1925 the Chicago Conference was held with its intensive committee work applied to all school levels, the pooling together of the teaching experiences and the thinking of experts from all over the country. It is also interesting to note that not only the health consultant, but members of the committees for this Cleveland work, were generous contributors to these conferences, which were called by the American Child Health Association.

I wish there were time to set before you the subject matter on the 63 pages, for it is all interesting, but there is only time to give you the "layout," so that we may see what these committees considered essential in teaching material. Nine objectives are offered for this comprehensive program, three of which I will mention because they are related to our topic, namely (1) To develop or maintain specific health habits; (2) To develop health knowledge; (3) To develop proper attitudes toward health, health practices and life situations. Then follows a statement to the effect that twelve subjects in the curriculum have definite contributions to make toward these particular three objectives—and they are listed as follows:

1. hygiene
2. physical education
3. home economics
4. general science
5. social science
6. vocational guidance
7. shop
8. art
9. music
10. English
11. foreign languages
12. mathematics

Hygiene, the first one listed, is the time honored "course" which is usually held responsible for all health instruction in secondary schools, and is sometimes found in one department and sometimes in another. Irrespective of who gives the course, it must be built about the physical and health habit condition of the class. This depends somewhat upon the economical and social status, and more decidedly upon the previous school health experiences of the class.

The first thing to do is to analyze the situation by having the children understand what is needed, and then work out a scheme for discovering the facts. The mistake has too often been made of taking for granted that all children need more baths, have too little sleep, eat the wrong food, do not take sufficient exercise, and, above all, that all of this business is news to them just because they have reached a new school, where at last, they are to receive a good training. And what is a still greater mistake, exactly the same methods of going about this health training are used that have been so well developed for elementary education, because no one has had time to adjust the same old story to the next, and the next, and the next, age levels. It will always be necessary in secondary and college and university levels to do something about personal hygiene, but that does not necessitate the same old checking system or poster making that we resorted to in the kindergarten. Having decided what hygienic measures need attention, the keynote of further work should be the development of responsibility among the pupils, and this naturally demands scientifically correct knowledge upon which the children may base their choice of behavior, for they are beyond the stage of doing thus and so because "teacher" asks them to, or because they will receive a reward. Much of this knowledge they should find in their science courses, but in the hygiene course this information can be definitely tied up to the behavior problems, and furthermore, if for one reason or another, all of the children are not receiving the necessary scientific informational background, it should be the care of the hygiene teacher to supply the missing information, through the cooperation of the science department. It is then necessary for the hygiene teacher to know all units of instruction contributed from the various courses listed above and to see to it that every pupil receives his due share.

This brings us to another side of the story—administration, upon which hinges the success of a secondary school health program. The very fact that it reaches into all departments takes it out of the so-called "subjects" and makes it necessary to treat it in some other way. Through a study of secondary school health programs made three years ago by the American Child Health Association, a plan was discovered and has been elaborated whereby one member of the staff is called a Health Counselor and is directly responsible to the principal for the duties of a Health Counselor, no matter to which department she may belong. She it is (or he it is) who has the health of the students really at heart and she makes every effort to see that all school activities are so ordered as to best promote the health interests of all pupils. This involves a coordinating process between the medical and nursing service, the home, the community and the whole school staff. She needs the backing of a strong committee, as well as the principal, and will have to delegate much of the actual work, perhaps even the teaching of hygiene, to someone else: but with the right personality in this Health Counselor, health will become an underlying policy, not a fad which shows itself through spectacular stunts, but rather an inconspicuous force taken for granted by everybody and accepted as fundamental in education.

As for who is best fitted to be a Health Counselor, it depends somewhat upon previous training, but much more upon interest and personality and a willingness to be a pioneer, with the desire for further study that is necessary to all pioneering. Looking into the 53 problems which the American Child Health Association studied three years ago, we find that 11 schools turned to Physical Education for their leader, 10 to general education, 6 to nursing, 2 to home economics, 1 to biology, and 1 to medicine. It is particularly interesting to note the tendency among general educators to take responsibility in the health program, rather than to delegate it to specialists, and also that the specialist most turned to is the physical educator and that the biologist is least turned to. There is much food for discussion here.

Returning to the 12 curriculum subjects which the Cleveland committee found to have contributions to make in health teaching, the first one, hygiene, is the only one devoting itself wholly to one topic. In general terms, this teaching should be based upon the health status of the pupils, but no matter how far down the scale this status may be, the teaching should reach the appropriate age level and be planned to carry the pupils at least one step further toward the

adult health knowledge goals set up by Dr. Livingston Farrand, as follows:

"An educated person should
1. Know the physiological and anatomical basis for sound health habits.
2. Know the types and amounts and proportions of the various food elements essential to the proper nutrition of the body.
3. Have an acquaintance with the principles of normal mental action and the conditions underlying the more common variations from normal states of mind.
4. Have a general understanding of the sex instinct in man, the stages of its development, its normal expression, and the values and penalties attaching to the expression of that instinct.
5. Have a knowledge of the factors determining infection and resistance and of the principles of artificial immunization in the case of certain of the common infectious diseases.
6. Have enough knowledge of the causes and prevention of the degenerative diseases to offer a prospect of passing through middle life without a breakdown.
7. Know and therefore be armed against health hazards lurking in the environment.
8. Appreciate the necessity for frequent medical and dental examinations.
9. Have an intelligent basis for choosing wisely his medical advisors and for realizing that the modern practice of medicine is grounded on science and not on mystery, fancy and tradition.
10. Have a knowledge of the important public health problems facing the community, of the methods of attacking these problems, and of the results to be expected from intelligent community action in the public health field."

A course in hygiene should contribute to all of these adult goals, at some time during school progress, but the proper selection of subject matter at the proper time is as yet in the experimental stage.

In our list of contributory subjects, physical education is placed first as the one most often claiming the responsibility of health teaching, and yet when the analysis was made of the purposes of the physical education courses among the 53 schools in our study, health was not included in the category of the 95 different statements. Training of posture was mentioned 36 times, and these words were evidently set down to represent health. In the Cleveland outline, 4 objectives are set down for physical education: (1) To engage in big muscle activities under wholesome conditions; (2) to develop specific skills; (3) to develop a social personality; (4) to develop positive health ideals and practices. In the fourth of these objectives, we see the definite tie-up to the instructional side of the health program.

Home economics is making a large contribution to the teaching of health in many secondary schools by including boys, through offering courses in household budget-making and cooking, by giving dietary advice to all students who seek it, and by using the school lunch room as a project for every student. We often talk of linking our teaching to life situations and yet we neglect the most obvious ones at hand. In its direct teaching, this department uses health as one of its main objectives and is essentially a health teaching unit, but the small number of students reached is unfortunate and limits the place of this subject in the health program.

General science was considered a basic subject to health teaching in 25 of the 53 schools studied. The following units of instruction are offered by the Cleveland science teachers as contributing to health knowledge: air, water, weather, the solar family, elements and compounds, energy and forces, machines, heat, light, sound, electricity, rocks and soils, plants, animals, foods, and sanitation. It is perfectly obvious that a certain portion of the instruction on these subjects can readily be associated with health problems, and still the unity of the course be adhered to. Social science has been analyzed in the same careful way, and through the interdependence between groups of people, through the study of economic and industrial conditions, and of the relation of mental attitude to governmental problems we see again a direct contribution made easy by association.

Vocational science, through its discussions on success, habits, personality, etc., is a large factor to be taken into account.

Shop work is, either consciously or unconsciously, demonstrating many health problems, and art and music contribute to mental health through appreciation of the beautiful, and they both have concrete contributions to specific health problems. English and foreign languages, through biographies and the use of topics for discussion or writing, have endless opportunities, while mathematics is full of resources in all sorts of health problems of an investigating nature, with the formation of telling graphs as the climax. But just fancy a correlating mass of subject matter such as I have hinted at, without an all powerful correlator to harness it together and make it a unified block of instruction. The dangers of duplication and of contradictions spring to mind. A Health Counselor needs to be very wise indeed to steer these many forces in the right direction. In the secondary school, if such a thorough teaching program has already been carried out during the junior high period, we still have the personal health problems to solve, but increasingly, as the age

(*Concluded on page* 47)

Cleveland Experiments With Physical Ability Tests

FLOYD A. ROWE

Director of Physical Welfare, Cleveland, Ohio, Public Schools

PRACTICALLY the only purpose for which tests are valuable is to measure individual and group development, in order to enable the teacher to secure greater development in the same time with the same teaching effort. No other use to which tests can be placed is as valuable as is this.

The simpler the test, the more valuable it becomes, because it takes less time to administer and therefore more time is left to make use of this information secured by the test.

Simplicity then is tremendously important.

Next in importance after simplicity comes, or rather is correlary with it, an understanding of ability. If the children involved understand what the test is all about, and are therefore able to be intelligently interested, another valuable feature is included.

The primary activities in physical education are running, jumping, climbing, and throwing. Almost everyone agrees to this classification. Many include others, but certainly these are the fundamental activities of the race. Therefore, any test must or should have its foundation in these fundamental activities. Age, weight, height, etc., are all secondary to these four fundamentals from the standpoint of the physical ability of the individual. In days gone by, one's ability to run, to jump, to climb, or throw were measured by the stern test of life. If one failed to run fast enough, jump quickly enough, climb with sufficient speed, or did not throw with sufficient accuracy, he either failed to escape an animal or an enemy, or his food escaped him. The result in either case was equally unsatisfactory. One ceased to live by becoming food for some other hunter, or starved from a lack of success as a hunter. No other test has ever been evolved that has in it as many dramatic possibilities. This test certainly had the interest item raised to the nth degree. Formerly, the test was applied daily or several times daily as the case might be, and when the test was given, one often failed to survive if he did not pass the test. This was perfectly understood. No one can therefore question the validity of the test.

Of course, this did away with much of our present day problem. Formerly those failing to pass were either eaten or starved eventually. Therefore, our forefathers were not presented with our ever present difficult problem of finding a suitable program for the failures. Be that as it may, we are the offspring of those who were successful in passing the test. Why not then continue with this practical sort of test, responses to which

MR. FLOYD A. ROWE

are thoroughly established in our spinal columns, according to psychologists.

The question was never asked, of old, how fast can a man 20 years of age, five feet tall, weighing 250 pounds, run. It is a safe conjecture that the daily tests kept everyone in form; there was no such thing as overweight, because if one became overweight he was probably eaten up. Talk about motivation! Our ancestors had it plus, and no mistake.

But to get back from conjecture to fact, we as a group are interested in those tests which, when applied, will help us to do the most effective work in Physical Education.

True, our activities have changed. We still have to run after street cars, etc., to jump, to dodge autos, to climb stairs and into rumble seats, but these activities are not necessary to the daily maintenance of life. The events are still considered our primary events, however, and the ones about which most of our Physical Education activities are centered. Therefore, they are still the ones we should measure and in terms of which any test should be based. Almost every boy is interested in his ability to do these things in reference to the other boys of the group with which he associates. He can also be interested in his own improvement in these events providing they have a fairly apparent relationship to other activities in which he is interested.

Regarding the actual uses to which tests may be placed.

The work which can be done with any group depends upon the relative homogeneity of the group itself. All will agree to this. Therefore, any test which really gives us a true picture of the physical abilities of the individual members of the group is valuable in the degree that we are able to apply the results to the sorting or grading process of the individuals according to the findings of the test.

For the past four years we have been experimenting with this question of class assignment in Physical Education. Several schools have made honest efforts to program children so that those of the same physical abilities might be placed in the same class. To date the best arrangement we have been able to make is as follows:

An entire school was tested and in grades 7, 8, and 9, where we had rather large groups involved, each group was separated into three groups, x, y, and z. Classes then of 7th, 8th, and 9th grade pupils report to gymnasium according to x, y, z groups. This gives a selectivity of three divisions within each grade based on physical ability, as measured by our test. Not ideal to be sure, but as contrasted with the old method of assignment to class by half grades or by sending all those with vacant periods at the same time to the gymnasium, a vast improvement.

In grades 10, 11, and 12, where numbers fall off, we grade according to x, y, and z groups covering the three grades, having definite limits to each group, and promotion from group to group when ability is shown. In addition, an extra period is set aside for special things—for girls; clog dancing, etc. Girls passing into x groups may elect this extra period of gymnasium work.

Such a division of pupils according to x, y, or z ability as determined by the test, works well with all grades excepting 7-B. Since these children come to junior high school from a number of elementary buildings as well as from private and parochial schools, they can not be assigned to classes on the x, y, z basis till the second semester. Our tests are given in the spring, before school is out, and the results tabulated and furnished school administrative authorities, so they can plan on their class organization in advance. The same holds true for the mid-semester period when reorganization takes place.

So far as the make-up of the tests themselves is concerned, no claim is made of originality. The various elements have been used by teachers of physical education in various combinations for almost as long as physical education has been taught in the public schools. The point system of arriving at the score of the individual is neither new nor original. However, after a searching comparison with other tests, we in Cleveland are satisfied that the tests used give results the validity of which is as great as that obtained by any others. In addition to equal validity, there can be no question but that the test itself is much more simple in both its application and computation of results than are other tests for which many claims are made and substantiated by statistical data.

Since validity of statistical data depends principally upon two items, namely, the size of the group from which the normal scores are derived and also the fairness with which the group represents or is representative of a much larger group, we wish to say that our norms were obtained from a group of 1630 boys in a single metropolitan high school, having the following racial make-up: Italian 15½ per cent, Slovenian 18 per cent, remainder American.

Results are now being checked in another high school in a different part of the city, and these results are being correlated with another group of tests of a different type, for which norms have been tentatively established.

So much for the introductory remarks. Now comes the tests, which are slightly different for junior high school and senior high school boys. Senior high tests have the 75-yard dash instead of the 50-yard, and the 12-pound shot put rather than the 8-pound.

JUNIOR HIGH SCHOOL BOYS' PHYSICAL EFFICIENCY TEST

Average 7-B Boy — Name

7-B — Grade

Date

Age (Year) (Month)

Height (Feet) (Inches)

Weight

(Normal weight, age and height considered)

EVENTS	Record	Point	Points	Stand. Broad Jump	Chinning	50-Yd. Dash	Shot Put	Grip Right	Grip Left	Lung Capacity	Points
			100	7-6	14	6-0	38-4	134	128	325	100
Standing Broad Jump	5 ft. 7 in.	40	95	7-4½	13	6-2	37-1	127	121	313	95
			90	7-3	12	6-4	35-10	120	114	301	90
			85	7-½	11	6-6	34-7	113	107	289	85
Chinning	3.3	33	80	6-11	10	6-8	33-4	106	100	277	80
			75	6-9	9	7-0	31-8	100	94	267	75
			70	6-7	8	7-2	30-0	94	88	257	70
50 Yard Dash	8.0	35	65	6-5	7	7-4	28-4	88	82	247	65
			60	6-3	6	7-5	26-8	82	76	237	60
			55	6-1		7-6	25-0	76	70	227	55
Shot Put	21 ft. 5 in.	43	50	5-11	5	7-7	23-4	70	64	217	50
			45	5-9		7-8	21-8*	64	58	207	45
			40	5-7*	4	7-9	20-0	59	53*	197*	40
Grip R.	57 lbs.	37	35	5-5	*	8-0*	18-4	54*	48	187	35
			30	5-2	3	8-2	16-8	49	43	177	30
			25	4-11		8-4	15-0	44	38	169	25
Grip L.	53.9 lbs.	40	20	4-8	2	8-6	13-0	40	34	161	20
			15	4-5		8-8	11-0	36	30	153	15
			10	4-2	1	9-2	9-0	32	26	145	10
Lung Capacity	197.4	40	5	3-11		9-6	7-0	28	22	137	5
			1	3-8		10-0	5-0	24	18	129	1
Total Points		268									

A line drawn between the stars on the above chart tells the story graphically of high and low abilities This scheme has been used by many systems, notably Detroit.

The chart above shows the tests used and the method of scoring the tests and of recording performances. On the cards now being used, there are a sufficient number of "record" and "point" columns at the left of the card to permit of the use of the card throughout the high school life of the boy.

no indication as to the degree of normality or abnormality of a boy's physical ability. The raw score does serve as a direct comparison with the raw score of any of his associates, but as stated above, does not place him with regard to the average of boys of his age and weight.

AVERAGE BY GRADES
Second Operation

Grade	Broad Jump	Chinning	Dash	Shot Put	Grip Right	Grip Left	Lung Capac'y Cu. Inches
7-B	5 ft. 7 in.	3.3	8.0	21 ft. 5 in.	57.6	53.9	197.4
7-A	5 ft. 8 in.	3.5	7.8	21.ft. 1 in.	63.4	58.1	202.9
8-B	5 ft. 9 in.	4.5	7.6	22 ft. 10 in.	72.0	63.2	211.9
8-A	6 ft. 1 in.	5.0	7.5	23 ft. 5 in.	73.7	67.6	217.9
9-B	6 ft. 3 in.	6.0	7.6	24 ft. 10 in	75.3	70.0	233.2
9-A	6 ft. 4 in.	6.2	7.5	26 ft. 3 in.	82.9	75.1	248.4
10-B	6 ft. 8 in.	7.1	10.8	23 ft. 1 in.	85.1	79.5	262.7
10-A	6 ft. 8 in.	7.4	10.7	23 ft. 0 in.	85.8	78.0	277.9
11-B	7 ft. 1 in.	8.3	10.2	25 ft. 5 in.	97.4	88.6	291.2
11-A	7 ft. 0 in.	8.1	9.2	25 ft. 2 in.	98.0	89.5	280.7
12-A	7 ft. 4 in.	9.7	10.0	27 ft. 7 in.	101.0	94.1	302.1

The average performances by half grades are herewith appended. It must be borne in mind that at Grade 10-B, the dash changed from 50 yards to 75 yards and the shot put from 8 pounds to 12 pounds. The progression of these averages by half grades is worth study and thought.

The raw scores of the Cleveland test give

To obviate this difficulty, a table of norms for both junior and senior high school has been constructed, with age and weight as a basis.

Another difficulty which presents itself is in comparing scores of junior high boys with

(*Concluded on page* 43)

Physical Education and Leisure

JAMES E. ROGERS

Director, National Physical Education Service, New York City

A GREEK philosopher once wrote a note to the teacher requesting that the children be given a vacation so that they could learn something. He was not joking but was in earnest. He was indeed a wise old philosopher, for he understood the needs of growing youth.

Recently a superintendent of schools stated that he would rather have a playground without a school than a school without a playground. Here was truly a sensible educator, who must have read carefully the writings of those educational leaders who have made modern educational practice. Froebel, Pestalozzi, J. Stanley Hall, Herbert Spencer, E. L. Thorndike, W. Kilpatrick and John Dewey have all stressed the values of physical activity, play and recreation in education.

Educators throughout the country are taking a keen interest in the education for "the wise and wholesome use of leisure." In the seven cardinal principles of education as adopted by the National Education Association after many years deliberation, one is "training for the wholesome use of leisure." President Clarence Little, University of Michigan, recently stated in an address that he was as much concerned with what his students were doing outside of the classroom in their free hours as in what they did inside the classroom.

"The educators of the country, as the overseers of the dispensation of the money of tax-payers, have the right to, and must in the near future, enter the lives of the students during their leisure hours as well as school hours." "Because of the complexity of our civilization we cannot allow students whose parents are bearing only a small part of the cost of educating them, to be pirates in their leisure time. It is our right and duty to know what our students are doing in the time outside of school, both after hours and during the summer vacations. We must get away from the idea that schools are only a convenience."

What a person does in his off-duty time oftimes determines the character of work he does in his on-duty time. Big business has recognized this salient fact and so have entered into the playground and recreation business. Most industries now maintain playgrounds and recreation centers within the plant and outside in the industrial community.

At a number of state and national meetings of various kinds, the writer heard speaker after speaker talk of the need for the training for the wise use of leisure. President Lewis, of Lafayette College, at the Georgia State Teachers meeting stated this as his main theme to the whole state teaching body. A president of a state university, at his inauguration, declared that the problem before this country was not education for production but education for leisure. In brief, educators and statesmen have come to realize that with the new day and the new age, a new curriculum is necessary and that the training in play habits and the conservation of free time is essential to the integrity and salvation of our national life. We do not do wrong nor go astray during our work or sleeping hours. It is during our free time that idleness finds mischief for empty hands and minds. Mischief is perverted play and quickly drifts to delinquency.

Last month at a meeting of educators the writer stated that the four main aims of physical education were: To train for health and physical fitness; to train neuro-muscular skills; to promote sportsmanship and character; and to prepare for the wise use of leisure by the development of wholesome play habits and interests. The chairman, one of our leading school superintendents, in response said that in his estimation the last objective mentioned was the biggest task that physical educators had. They had a fundamental job that was of supreme educational importance and if well done they would gain due recognition as a significant part of the school curriculum. With our crowded cities, industrialism, specialization, standardization, and congested living, provision and leadership for play and recreation will more and more become one of the primary tasks of the school system. The tendency in this direction is well marked today.

That "play is education" has long been accepted. Joseph Lee, in that masterly book, "Play in Education," has clearly demonstrated this statement. A better title might have been "Education through Play," because the book definitely shows the educa-

tional lessons and values to obtain through proper play facilities, program and direction. The kindergarten teacher is perhaps one of the best recreation and physical education instructors we have. She knows her child psychology, her age aims, and adapts her program accordingly. What is her curriculum? Ring games, singing circle games, rhythmics and folk dances, sand play, doll play, block play, simple dramatics, story telling, etc.; a splendid play and physical education schedule. The educational content of play need not be presented here, for it is now accepted by modern teachers if they have read Herbert Spencer, J. S. Hall, K. Groos, John Dewey and W. L. Kilpatrick.

Therefore, the physical educator whose program consists of plays, games, sports, rhythmics, etc., can do much to train for those play habits that will create an interest and a desire that will perpetuate itself into adult years that shall be devoted to the wise and wholesome use of leisure, which will become greater, as the working day is reduced. The physical educator has several objectives, but none of them is of more importance than this. He or she must train for health, organic vigor, neuro-muscular skill and all the other valuable objectives, but this teaching of play habits should be more often recognized. The point is that one of the biggest and most important jobs of a physical education department of a school system is this problem of "training for leisure" which constitutes one of the cardinal principles of education. If more and more, because of inventions and business efficiency, the hours of work shall be shortened and the hours of freedom increased, then the problem of leisure will become more serious and pressing. If it is true that school administrators will see to it that the schools train for the best use of this free time and that this training must be provided, then the physical educator should realize that timeliness of the challenges and do everything to be worthy of the opportunity.

An individual largely makes or breaks himself in his recreation. A nation rises or falls according to how the leisure of its people is used. The conservation of leisure is one of the first responsibilities of government and of the first concern to the statesmen. We have had conservation movements for natural resources and movements for the conservation of animal resources. Our national government, through the agricultural department, spends more for the welfare of the pig life than it does through the Children's Bureau of the Labor Department for the child life of America. It is about time we had the movement for the conservation of human resources. In such a movement, the provision for play, recreation and outdoor leisure time activities is apparent. Rapidly this situation will become a matter of national necessity.

Hence, one of the first objectives of physical education is to train for leisure. A child plays to gain life, while an adult recreates to regain life. Play creates the child. Through recreation man is re-created. So physical education departments are doing much for the upbuilding of the boy of today, who will be the man of tomorrow, by providing him with the physique, the health, the neuromuscular skills, the aptitudes, and what is more, with the desire for play and recreation. There are 26,000,000 school children in schools between the ages of 5 and 18. Throughout these twelve years of growing youth and adolescence, the physical educator has an exceptional chance to not only teach the skills and the knowledge of games and sports, but better still, to create the interest and desire for outdoor activity. The love for the open spaces, the hike, the camp fire, the swimming pool, the mountain climb and the nature study ramble, are the life lessons to be taught and learned. So scouting and camping also have become of interest to the physical educator.

With better physical equipment and play facilities, with more area and accurate trained leadership, the physical educator functioning to the 26,000,000 school children, progressively and successively as he passes up and on through the grades, can do perhaps more than any other individual to establish the right play habits that will be harnessed to interests that shall linger through adult life. It is a noble task and worthy of the best we have to give. When it is considered that the physical educator can touch each grade year of the child for at least an hour or two a day, counting the regular school time allotment, the after school program, the extra-curricular schedule and the intramural, then his strategic position must be realized by the educator and the recreation superintendent. Most important is that the physical educator realize this fact.

The purpose of this paper is not to make the obvious statement that physical education had much to give to the play and recreation program, but rather to arouse the physical educator to the realization that this is one of his main objectives, which he should keep foremost in mind.

Importing Physical Education

JOHN DAMBACH

Director of Physical Education, University of Pittsburgh

THOUSANDS of teachers travel to Europe every summer in search of a vacation and new ideas. They rush about madly, in the characteristic way of Americans, looking for new methods and inspiration so that their class periods the following winter may be a little less monotonous. Among this restless band there are a goodly number of teachers of physical education. These go primarily to Denmark but more recently to Germany. Why do they not go to Russia, Italy or Czecho-Slovakia? I do not know. Perhaps because no one has yet started the caravan by coming back enthused with the Russian, Italian or Czecho-Slovakian systems of body training, for these countries are developing a system of physical education just as interesting as that of either Denmark or Germany. As a matter of fact, the Danish system has already become a little old fashioned in America. I know one city director who declares that he will behead any teacher of physical education under his supervision who is caught teaching Danish. What is wrong with going to Denmark to study with "Niels Bukh" or to Germany to study in the Bode Schule, or to the school at Spandau, or to Italy or Russia, or Bulgaria, or China, for that matter? Is it wrong to bring these systems back to America and transplant them into our schools?

Our teachers go, they see, but they do not conquer. They learn the technique thoroughly but fail to grasp its meaning, for if they understood the meaning they would not try to impose it on Americans. So much good could be obtained from these numerous trips to Europe if the fortunate ones would say to themselves: "How wonderful this system is for Denmark and for the Danish people! How wonderful this system is for the Germans—it fits their psychology like a glove. It fits their customs and their strivings, their longings for higher expression, like a sunset fits our Golden Gate. In it the peasant's and the nobleman's *gefühl* is realized. My job is to go back to America and study the customs of Americans, their longing for expression, the American *gefühl* and translate it into physical education. If I can find the thing that fits America as well as the Danish have found the thing that fits them, then I shall have contributed to American physical education and my summer's vacation will have been worth while." But perhaps this is asking too much of them. They have not yet come to the point of understanding the import of international education, or the value of sociology and psychology to education. So we must endure these systems with patience while the novelty lasts.

It does not dawn upon these enthusiasts, for example, until failure proves it to them, that patriotism goes hand in hand with Leibesubungen in Europe, and that in America there is not the slightest reverence for either flag or president when two teams meet in a game of basketball. Nor do boys in America sing the "Star Spangled Banner" before engaging in a rousing game of "shinny." In Europe patriotism and "Turnen" started simultaneously and because of each other, and therefore have continued to be associated up to the present day. This is also why the Danes march to their beloved "Grund Gymnastik" carrying the flag and singing their national anthem. The American adaptation of this is having the students sing "America the Beautiful." You too have probably seen more than one American teacher of Danish give it up.

Another failure on the part of those who flood the tourist hotels in Europe is the failure to understand that these modern and interesting changes which are taking place in Europe are the result of changed social conditions rather than a seeking for higher physiological values. Man's intrinsic physiological status remains the same. One can keep fit with the system of the primitive, jui jitsu, the daily dozen, milking cows, or horseback riding, whether one is German, Danish or Italian. In Germany this change in social values has come about because of the revolution. Germans just now are expressing their new found freedom. Physically they are no different than they were in the time of Jahn—starvation included. Denmark is expressing a new ideal in education, just as Italy is expressing Fascism, and Russia Sovietism in their physical education. I do not know exactly what Roumania, Bulgaria and China are expressing, but certainly it is something characteristic of each respective nation. So we in America should

express something characteristic of our country. And this is the problem of every teacher of physical education in America. A careful study of this problem will bring out the fact that no one system can fit this country, because we are not unified into a nation. We are a "melting pot," or more nearly a "debating society." Our *gefühl* varies so much that each section of our country wishes to express itself differently. Indiana has its basketball. New England is more conservative and sticks to its Swedish. Michigan plays more soccer than Texas, which goes in for more baseball. Georgia likes its football, while California favors track. Perhaps the solution lies in studying your section sociologically and in developing a system of physical education which will fit it, until such time as America becomes more unified in its *gefühl*, its strivings, and in its seeking for a goal. I believe that two guiding principles should help us toward a goal. One is that the program in America must be informal, and the other is that it should be based upon the overcoming of obstacles.

Let me speak first of the latter. The real feeling for physical prowess started in America, not with the introduction of German gymnastics by Beck, Follen and Lieber, but by the scouting of its Indians, the breaking of new land in the West, and living up to the code of the West, and in the overcoming of the hardships of pioneer days. Times have changed. We have outscouted the Indian. Our roads have been made safe. The land has been cultivated. Our pioneer days are over, but we still keep on scouting, overcoming obstacles and relentlessly attacking our foes. The situation has changed, but the feeling is still there. Americans are pioneers at heart and their games express pioneer emotions. What is football, as played in America, but the out-guessing, out-scouting, undoing of a neighboring tribe of warriors? The shouts of victory, the despair of defeat, the praise for the injured hero, the secret practice and the colorful equipment—all are but things which went with pioneer days. The boy in the back lot playing "shinny" has the same feeling. The overcoming of obstacles is the thing, whether it is driving square to the green, looping the ball through the hoop, or smacking the ball for a home run, so long as there is a chance for victory or defeat. You may want to express something higher in your physical education—say swimming for health's sake, golf to cure indigestion, grund gymnastiks for the sake of rhythm and flexibility, or the rhythm of Bode for the soul—but if you try to inflict these on American youngsters they will still want to defeat an opponent in the skills you teach them.

As for the second principle, the battle of informal versus formal in both material and methods in physical education has been pretty much won by the informalists. All localities have either changed to the informal or are fast swinging over to it. Training schools and colleges have taken the lead and even the most formal of them, where only the Swedish form has been taught, are breaking away for games, dances, aquatics and sports. In fact, we are learning that dictation, such as the giving of commands in the setting-up drill, has little value in the education of American youth. Education proper has discarded it long since. We must admit that there are still some teachers in physical education who claim for the formal program such values as obedience and physical efficiency, but one need only ask: "Obedience to whom?" "Physical efficiency for what?" Some claim it to be a training for good posture, and others physical fitness, but if posture is thought of as a mechanical efficiency for action rather than standing straight and still, and physical fitness as that which is obtained through the expenditure of energy and organic stimulation, the games bring these more quickly than the setting-ups. Psychologically, sociologically, physiologically and morally speaking, American physical education must become informal.

The teacher who combines education with a vacation in Europe should keep these things in mind. He must not, while in Europe, be misled by the enthusiasm displayed before his eyes into believing that such enthusiasms could possibly be universal. He must search deeper and learn why the enthusiasm is there. If he finds the answer then America will be better known to him.

Last spring I met a physical educator who was planning to attend the Turnfest at Cologne. Since I knew that turning in Germany was on the decline, and sports and gymnastik on the increase, I suggested to him that it might pay him to visit such centers of sport as Duesseldorf, Dortmund, and Nurnberg, or the schools of Karl Loges, Laban, or Fritzgroh.

He replied that he wanted to spend his time on the genuine thing, and not on side lines. A mistake, for if physical education is to gain anything more from German sources, it will surely be from the new experiments of the Germans in sport rather than from the old system which they themselves are outgrowing.

The PENTATHLON

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Health - Play
Physical Education
Athletics - Leisure

Journal of
THE MIDDLE WEST SOCIETY OF PHYSICAL EDUCATION
Published at ANN ARBOR, MICHIGAN
E. D. MITCHELL, *Editor*

ATHLETIC PROPOSALS

Among the topics that will be discussed before Superintendents at the N. E. A. meeting at Cleveland this month is the rather startling and revolutionary proposal that all state championships in public school athletics be abolished. Mr. Frederick Rand Rogers, who will champion this proposal, is State Director of Health and Physical Education for New York State, and has recently secured sanction for such a move in his own state. Mr. Rogers, it will be remembered, was the originator of the idea that coaches should be kept off the benches during the progress of games—an idea enforced in New York State and in a number of other centers; for example, Detroit in the Mid-West.

In defense of his views, and to better state his position before the Cleveland meeting, Mr. Rogers has just published a book, "The Amateur Spirit in Scholastic Games and Sports." It is a well written and idealistic presentation of his philosophy of sport and athletic competition. The athletic practices he would change are, in the main, three in number, and the book centers its attention on arguments, pro and con, concerning these. The author is fair in presenting both sides of the case despite the fact he is so firmly entrenched in his own beliefs.

The three practices against which Mr. Rogers launches strong weapons of argument are as follows:

1. The practice of allowing coaches to direct the entire strategy of an athletic game or contest, and of using the players merely as pawns. This, to him, is an educational fallacy. He would return the game to the players and emphasize captain leadership.

2. The over-emphasis on winning and glory rather than playing. Consequently, he advocates the abolishment of state championships. To him, everything possible should be done to equalize competition . . . . "The ideal game is the tie game." . . . "Championship tournaments always tend to drive out the amateur spirit."

3. The present basis of determining amateur and professional standing, according to Mr. Rogers, is hopelessly wrong—"The original meaning of the word 'amateur' has been replaced by a dollar sign." The true criterion is the love of the sport or the art —without thought to ulterior motives of financial gain, fame, awards, etc. The formal stratification of athletes into amateurs and professionals must be abandoned.

It is not to be expected that the friends of school sports will be easily convinced as to the practical value of all these proposals. Many of the problems of athletics are so debatable that there is always much to be said on each side, and the weighing of the respective merits is so intangible and vague that it is a hard thing to make an arbitrary decision one way or the other.

It is clear, however, that even those who disagree with Mr. Rogers will recognize the great value of bringing some of these questionable aspects of athletics out into the open where they can get a good airing. The more light that can be thrown on them the better.

A WORD ABOUT OUR ADVERTISERS

Word has come that a number of our readers have been patronizing our advertisers and have been mentioning the Pentathlon in making their inquiries. This is a big help to our magazine, as it could not be published at the present nominal subscription price if it were not for the generous help we are getting from advertising sources.

Our advertisers are naturally interested in promoting Physical Education because an expansion of our program means more business to them. But a word of praise for the courage of our first year advertisers is well deserved. They were willing to help at a time when help was most needed in getting the new journal of our society upon its feet. Our Mid-West people should always have a friendly thought for the business concerns who were willing to give us this support; for they are not merely fair weather friends but friends who are sincerely interested in our society and its success.

It was on the security furnished by these first offers of help that the Editor was encouraged to publish for the members of the Mid-West Society, not merely a bulletin, but a more pretentious journal which should contain articles of practical and vital help.

All our advertisers this first year deserve in their turn the good will of the Pentathlon readers. Whenever possible, we should give them our patronage.

NOTICE OF RESEARCH SECTION

At the Detroit Meeting of the Middle-West Society of Physical Education, the Research Section elected to office the following:

C. H. McCloy, 347 Madison Avenue, New York, Chairman;

A. H. Steinhaus, 5315 Drexel Avenue, Chicago, Secretary.

As a result of recent personal conferences, the Executive Committee proposes the following as an outline of the activities of this section for the coming year:

1. The secretary of the section will be glad to serve as a clearing house for those undertaking projects in the field of research in physical education or health. If these individuals will communicate the name and nature of said projects to the secretary, such communications will be held confidential and neither the name of the experimenter nor the nature of the experiment will be divulged without permission. This precaution is necessary to safeguard those undertaking researches in the nature of dissertations. The communicating to the Research Section of these experiments, however, will enable those desiring co-operation to secure it and will in addition enable the Committee to know where potential publications and other original contributions may be sought. In addition it may be possible to prevent unnecessary duplication.

2. In the case of individuals who desire to undertake research projects, who may be inexpert in research techniques and methods of approach to problem-solving, the secretary of the section will assume responsibility for securing needed assistance from someone competent in the particular field of research undertaken. This assistance will be rendered free of cost. Individuals desiring such assistance should communicate the nature of the project upon which assistance is desired in as much detail as possible to the secretary of the section. This will then be forwarded to the individual who is to render the service and a carbon copy of the letter of transmission will be sent to the applicant.

3. The officers of the section will endeavor to pass upon research publications and to offer such co-operation with the writers of such papers as may be desirable to render them most suitable for publication. The committee will co-operate with the editor of the Pentathlon in recommending outstanding contributions in this field for publication. The committee will feel that its duties consist not simply in passing judgment upon such papers but in assisting the writer to adequately meet the standards of scientific publication.

4. The Committee will endeavor to promote informal groups of research workers in various centers for the purpose of study of the research field and mutual co-operation. Such groups are at present functioning in Chicago, Detroit and New York City.

5. The Committee will endeavor to secure suitable material for its programs at the annual meeting, and will be glad to render assistance to the executives of other sections who may desire to know of research conducted in their respective fields.

6. The Committee will endeavor to promote co-operative research particularly in the field of tests and measurements in the field of physical education. At the annual meetings of the Society, groups interested in research may be assembled for the purpose of organizing such co-operative effort.

7. The Committee will endeavor to call to the attention of physical educators from time to time significant tools which have already been developed by research in physical education with the hope of getting these methods more widely used.

This section in common with other sections has very little in the way of funds to carry on its work. Activities requiring money must be financed privately.

The Committee would like to request that anyone having studies of importance, completed or under way, which could be published or reported in the sectional meetings, should communicate the same to the secretary as soon as possible.

Respectfully submitted,

A. H. STEINHAUS, Secretary.
5315 Drexel Ave., Chicago, Ill.

CONVENTION DATES

NATIONAL EDUCATION ASSOCIATION
(N. E. A.) - CLEVELAND, OHIO
February 25-28, 1929

Complete information on Physical Education program may be obtained from Floyd A. Rowe, Director of Physical Welfare, Cleveland.

SOUTHERN DISTRICT CONVENTION
GREENSBORO, NORTH CAROLINA
March 27-30, 1929

Chairman of program: Mary C. Coleman, North Carolina College for Women, Greensboro, N. C.

EASTERN DISTRICT CONVENTION
NEW HAVEN. CONNECTICUT
April 17-19, 1929

MIDDLE-WEST DISTRICT CONVENTION
CHICAGO, ILLINOIS
April 24-27, 1929

Convention Manager: C. E. Delaporte, 460 South State St., Chicago.

The preliminary announcement of program is as follows:

Wed. A. M.—Registration and visitation of schools.
Wed. P. M.—Registration and visitation of schools.
Wed. Eve (8:00 P. M.)—Address by President of Mid-West Society of Physical Education.
Address by H. Wallace Caldwell, President of the Board of Education, on behalf of the Mayor of Chicago and the School Board.
Address by William J. Bogan, Superintendent of Schools.
Wed. Eve (9:00 P. M.)—Social.
Thurs. A. M.—General session.
Thurs. Noon—Luncheon meetings.
Thurs. P. M.—Section meetings.
Thurs. Eve—General session.
Fri. A. M.—Section meetings.
Fri. P. M.—General session.
Fri. Eve—Banquet and speakers.
Sat. A. M.—Demonstration of physical education activities. Place to be announced later.
Council meeting.
Swimming demonstration.

More complete announcements will be made in the March and April numbers of the Pentathlon.

Anyone having suggestions for subjects or speakers on the program will please communicate with the chairmen of the respective sections.

See page (1) for names of chairmen.

Intramural Athletics in the High School

W. L. JOHNSON

Director of Physical Education, Lincoln High School, Manitowoc, Wisconsin

THE intramural movement is attracting the interest of practically every physical educator throughout the country. Schools everywhere are inaugurating programs of sports for the masses of students. This is only a natural trend when one considers that athletics are today one of the most interesting phases of our physical education program. Given a chance, the average high school pupil is eager to get into athletic competition of some sort.

Our interscholastic teams can only accommodate a small portion of the student body. If every pupil is to enjoy the thrills of athletic participation, he must be provided with an opportunity. An intramural program should not exist for the sole purpose of developing candidates for the various interscholastic teams. If an intramural program is to prove its worth in our educational scheme it must provide "sports for all" and exist for the benefit of the participants—morally, socially, and physically.

An intramural sports program can be justified from many standpoints: (1) It provides for the worthy use of leisure time, (2) it promotes the health of the participants, (3) it provides athletic competition for every student, not the few, (4) it provides the finest sort of training for citizenship through the policy of "Fair Play" and the many other virtues.

In promoting an extensive intramural program it is necessary, first of all, to secure the services of a person who is really interested in athletic sports, and one who enjoys working with boys and girls and has their welfare at heart. The securing of an enthusiastic director is undoubtedly one of the biggest problems in inaugurating a competitive sports program.

Facilities for carrying on the various games are very necessary. While the lack of facilities will hamper a big program, this reason is too often given for not having and fostering an intramural program. However, this should not curtail the entire program, for a great many activities can be fostered with very limited and cramped facilities. At Manitowoc we are especially fortunate in having fine outdoor facilities for all forms of athletic sports. The high school site contains approximately seventeen acres. There are two regulation football fields, a baseball diamond with a fine back-stop, a six-lap running track, six tennis courts, a small-sized field which is used for field hockey and speedball for girls, and plenty of space for horseshoe courts and archery equipment. The gymnasium has a floor space of 60 x 90 feet, and is divided by a heavy curtain so as to have two floors for games. There are also six basket ball goals available for foul throwing tournaments.

The present intramural program was inaugurated at the Lincoln High School, Manitowoc, Wisconsin, by the writer in the fall of 1926. Previous to this there had been very little done along this line. The first year thirteen different sports were offered. Several of the sports were entirely new to the pupils, but they soon learned to like them. During the fall season speedball and cross country running were offered. When it became necessary to work indoors, foul throwing, basket ball, indoor baseball, and an intramural festival were promoted. Our ideal outdoor facilities made it possible to offer ice hockey, and later in the winter a big ice carnival was held. In the spring, tennis, diamond ball, horseshoes, track and field athletics, and some all-around athletic tests were offered.

During the past year of 1927-1928 five new sports were added. There was some demand for a game similar to football, but one that did not require so much equipment and where injuries were not so apt to happen. To meet this demand touch football was offered, which immediately proved very popular. In the winter months, boxing and wrestling interested several, so a training class was organized and tournaments conducted. After the close of the basket ball and indoor baseball seasons there was need for a sport to fill in the program until the outdoor facilities were available, so volley ball was introduced. With the opening of the outdoor season, baseball became very popular and was fostered as a regular intramural sport.

As a part of the physical education program, the incoming freshmen each fall are given a very thorough physical and medical examination. After the examination those physically unfit for competitive athletics are

so advised and all others are encouraged to engage in some form of athletic competition. Even those who are unfit for the strenuous activities engage in the milder ones. Many of the crippled boys and girls take part in the foul throwing tournaments, horseshoes and croquet.

The classification for teams in all team sports is weight. It has been the writer's experience that the too commonly used inter-class method is undesirable for many reasons. When the inter-class method is used, only the best players of the class are found on the teams, and the little boys and girls who have never played at all never get a chance. Since we are interested in promoting sports for every pupil, we should make it possible for everyone who has any desire to play to be a member of a team. Without a doubt, more class spirit can be aroused when a team representing each of the four classes in the high school are playing off a tournament, but the mass of players is what we should keep in mind.

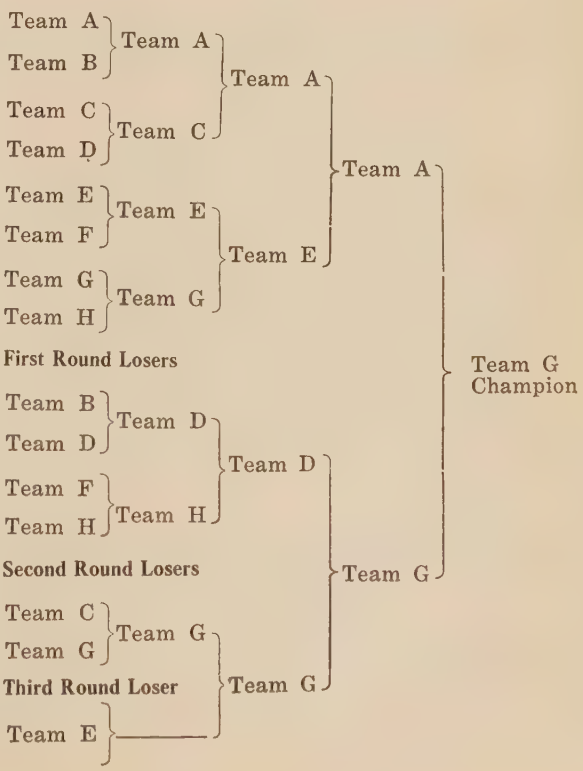
For basket ball the players are grouped into four divisions. The Midget division includes all players weighing less than 95 lbs.; the Lightweight division is for players ranging in weight from 95 to 115 lbs.; the Intermediate division includes players weighing between 115 and 135 lbs., while the Heavyweight division is for all players who weigh over 135 lbs. Basket ball has been so divided, because of the personal contact of the game, where weight and height are so important. In all other team sports there are but two divisions, namely: Lightweight and Heavyweight. One hundred twenty-five pounds is the dividing line for the two divisions. There are no divisions in such sports as tennis, horseshoes, cross country, foul throwing, and field and track athletics.

As entries are taken for a sport the names are recorded in the proper group. When all entries are in, the teams are organized from the entire list regardless of what class the various pupils may be in. It can readily be seen that such a method does not provide for inter-class competition. On any team may be found pupils from all of the four classes in school. From a social standpoint this is desirable as it acquaints the upper class pupils with the younger ones, and vice versa. In some cases, captains are appointed by the director, and they in turn choose their teams from the list of entries. This is most often done with the older pupils who know each other, while in the younger classes the teams are often made up by one of the directors, as he is familiar with the ability of the various boys and can balance the team much better than a captain could with so many strange names. This method has worked out very satisfactorily.

After the teams have been organized a typewritten list of all teams for a sport is placed on the bulletin board and a duplicate copy kept on file. The schedules are then posted and the tournaments run off. The schedule of games for the week is placed on the bulletin board every Monday morning, and every captain is responsible for notifying members of his team as to when they are to play.

In all sports of an individual nature, such as foul throwing, horseshoes, tennis, boxing, wrestling, and croquet, the straight elimination plan is followed for the tournaments. When there are several teams entered in a tournament—for instance, eight or more—then a double elimination plan is used. If only three, four or five teams are to play in the tourney, then a round robin tournament is played off, and the team with the highest percentage is the winner.

The arrangement for an eight-team tournament under the double elimination plan can best be shown by the following diagram:



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The double elimination plan as illustrated worked out very satisfactorily. It is not necessary to play as many games as the round robin plan calls for, when there are several teams entered, and still it gives every team a much better chance in the tournament than the straight elimination plan does. A team has an equal chance to win the tournament so long as they have not lost two games.

Very little equipment is needed for an intramural program. Where a physical education program is promoted in a high school there is usually considerable equipment available. In our system every pupil has a uniform, and the ordinary rubber soled gymnasium shoes are worn for all contests. Practically all of the balls necessary for speedball, basket ball, indoor baseball, etc., are in stock for the regular physical education classes, and so far we have not had to purchase any such equipment just for the intramural contests. Last year the department purchased one dozen blue sweat shirts for the various teams to wear in outdoor contests for the color contrast. A few discarded red football jerseys are often worn by the opposite team when the weather is cold.

In baseball, the department furnishes the catcher's mask, protector, first baseman's mit, two balls (usually used ones) and bats for every game. In ice hockey, the goalkeeper's stick, protector, guards, and pucks are furnished. The school owns ten tennis rackets that are loaned to players in the tournament if they do not own one, and occasionally two tennis balls are loaned to players for their use. The regulation horseshoes are furnished for the boys, and the lighter weight is furnished for the girls. At present, we have three official horseshoe courts for the girls, and four for the boys.

One of the biggest problems in promoting an intramural program is the securing of competent officials for the various contests. It is impossible for the director to officiate all of the games, and so it becomes necessary to secure other help. Occasionally a faculty person is interested in such work and is willing to take charge of a game every evening. However, it is not always possible to secure faculty help, and then it becomes necessary to train older pupils, who can give their time to such work. Last year the writer conducted a training class for basket ball officials for approximately two weeks, and at the end of the period every boy who had attended the meetings was given a thorough

examination on the rules, and those with the highest standings were tried out in actual games. Those who proved to be the best qualified were used all season for the intramural games. Later some of these same boys were asked to officiate inter-school games about the city. This same plan is followed for speedball and diamond ball. We have, thus far, been able to secure a faculty man for the volley ball and baseball games. It has been found inadvisable to have a pupil referee the touch football games. It seems that there are so many technical points about football that boys do not understand that there is bound to be dissatisfaction.

Student managers can render a great deal of service and help in conducting such a program. Each year we have a junior boy in high school act as the Junior Manager, and the following year he automatically becomes the Senior Manager. The Junior Manager takes roll at the games, prepares the score sheets, keeps time for contests, and helps the Senior Manager to take care of all equipment. The Senior Manager records the results of all games, collects all equipment after games, makes ready for the contest, notifies captains when they are to play and officiates contests whenever necessary. During the year the Junior Manager is given some training and practice in officiating the various contests, so that he will be capable of taking charge of the regular contests the next year.

It is a part of the Senior Manager's duties to act as manager for interscholastic cross country and ice hockey teams, and through this work he becomes eligible to receive the official school award at the end of the year. The Junior Manager is awarded a gold medal, that can be worn as a watch fob, for his services.

It is not absolutely necessary to have expensive awards in order to get players for the various games. The first year that the present intramural program was promoted, there were no awards given the various winners of the championships. This did not seem to hamper the program in any way. The pupils were almost as much interested in playing then as they are now when they are awarded the "Intramural Championship" lapel buttons. While it is not absolutely necessary to give team awards, the winners of championships do appreciate a little token of some sort. The awards now given for all team championships are about the size of a one-cent piece, with the lettering "Intra-

(*Continued on page* 44)

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"Percentage Basketball"—A System of Offense

R. H. "BOB" HAGER

Supervisor of Physical Education, Tacoma, Washington, Public Schools

"PERCENTAGE Basketball" is the name given to my particular style of offense by a Pacific Coast sports writer as we launched it several years ago. The name was fairly descriptive so it was adopted and is the title of my book.

We play for close-in shots almost entirely, where percentage of hits runs high.

The ball is in our possession the greater percentage of time, due to the watchful waiting nature of our game, which gives further reason for the name. "Percentage Basketball," as a system, applies only to offense. You may use, with it, any type of defense you may choose. I have used zone defense and man-for-man, also a system distinctively our own called "duplex" defense, which is a combination of the other two.

Defensive work cannot be slighted. I certainly do not under estimate its importance. A strong defense makes a good offense excellent.

A coach who expects to keep pace with the game of basketball can well afford to read every book written on the subject, if for no other reason than to figure out a legitimate reason to disagree with it. Most of us can learn much from these books written by the recognized coaches of the country. They each offer many things of interest and a great deal of valuable information.

"Percentage Basketball" may not be the best basketball in the world, but it is "just a little different." For me it has proven very effective. I have won some championships with it and my former players, now coaches themselves, have met with marked success. You can't always win with it, obviously; but I believe that it will enable you to get the maximum performance from your squad.

Spread Formation Used

In this type of offense your players are placed as shown in the diagram as soon as your men gain possession of the ball. The corner men (1) and (2) must break to their positions quickly and must keep spread apart as they do so, to make it impossible for a lone guard to cover them both. The pivot man (5) may also break down the center of the court on this initial fast break or you may send one of the side men (3) or (4) down. Your initial break should include three men. The two men who do not figure in the fast break will take their positions more deliberately. If the initial fast break does not give you a chance to score, your players will quickly take the positions as shown in Plate I.

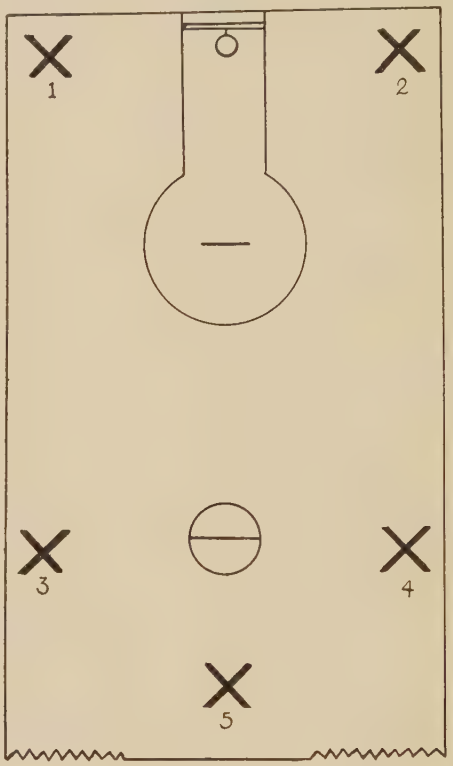


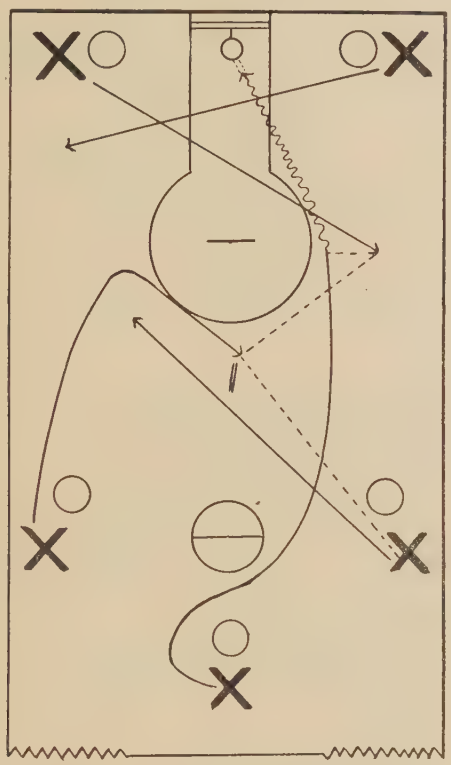
Plate I.

Once the men are in position, you have them spread apart far enough to make it impossible for one defensive man to cover more than one offensive man. By making each man a real threat in his territory you keep the area under the basket free from defensive men. The corner men, for example, must be dangerous on corner shots; for, if they are not, the defensive men playing against them can afford to move back under the basket and greatly hamper your offensive machinery.

If, on the other hand, these corner men are dangerous at all times, the guards have full assignments and can but rarely transgress. This opens the territory under the

basket. Numbers (3) and (4) are now called into action along with number (5), the pivot man of "Percentage Basketball." These three men take every opportunity presented to lose their guards. Every mistake of the defensive team is carefully scrutinized and made to contribute to the score. Players in the spread formation are now pitted one against one and it becomes a case of individual cleverness and a contest of wits and finesse. Your players must be well schooled in pivots, front turns, stops, feints, dribbling and basket shooting.

In your goal practice your men can specialize. They do not have to learn to shoot from all angles, but can practice shots from their own territories. Other difficulties that confront an offensive man are reduced to the minimum, because your men can specialize. Men in positions (3), (4) and (5), for example, do not have to be good corner shots, but numbers (1) and (2) must be.



Set Play Attack

You may point out the fact that I am assuming that a team is playing a man-to-man defense against us. This is not an assumption, but a result of actual game experience. You will eventually use a man-for-man defense against our offense or you will fall an easy victim. Zone or position defense cannot consistently stop "Percentage Basketball." Most teams attempting position defense against this type of offense will change between halves; others will change for a second game with you, and still others will wait until another season, but eventually you will be confronted with the problems presented in playing against man-for-man defense. Therefore, when you attack the problem from the most serious angle you must plan to meet this type of opposition.

Qualifications of Players for Various Positions

If I were to pick an ideal team for the "Percentage Basketball" formation, I would select tall, rangy men for the corner positions (1) and (2). Number (1) would be right handed, number (2) left handed. For the side positions (3) and (4), I would pick very fast, clever floor men, good dribblers, dangerous shots. For position (3), I would select a right handed man, for (4) a left handed man. For the pivot position (5), I would choose a quarterback type. He should be a good floor general, a man trained in split vision, a good dribbler, a man who is good in pivoting, and he should also be a real offensive threat. It is important to select a man for your pivot position who is well liked by his team mates. He does not have to be big; more often the smaller quick muscled type is more satisfactory. He may be left or right handed.

All of the men in this formation watch for the ordinary guard mistakes. Among these you will recall the habit of some guards, even playing man-for-man, who will follow the ball with the eyes and not shift their position to enable them still to watch the man they are responsible for. A ball passed to one of the corner men lays the guards against the two side men and pivot man as well as the opposite corner man's guard, open to this mistake. The offensive man in this case breaks around the blind side of his guard to the open territory under the basket for a return pass from the corner man. Other guard mistakes, such as changing men, over guarding, etc., should be looked for, because they present a chance to score in this type of basketball. The alert accurate passer is also a very important part of any scoring maneuver.

Set Play Attack

In addition to the type of play described above, which we call "Straight Percentage," we use a set play attack. The "Percentage Basketball" formation makes it possible for

(*Concluded on page* 48)

How to Construct a Practical Inexpensive Score Board for Basketball

D. Q. WILLIAMS

Physical Director, East High School, Des Moines, Iowa

THE success of our interscholastic contests in the athletic program depends to a great extent upon the active interest of the public, and one of the best aids at a basketball game is a good score board and time clock.

The model pictured below is one that is not expensive, may be operated by anyone and can be used in a gymnasium for the many class games, where the score helps keep up the interest. The clock is also an aid to both the teams and the coaches, who are always desirous to know the progress of the game.

The score board, which can be placed in a small and convenient place in the gymnasium, is 96 inches by 31 inches, 6 inches deep, and has all parts inclosed and protected. The construction as pictured in the drawing shows the five dials constructed of three-ply panel material. The hub of each dial is an ordinary bicycle hub with the inner axle turned so that it extends out more on one side than the other. One cone was ground down so as to be square and a small iron plate made to fit on this cone to hold the wooden part of the dial. A 2 inches by 3 inches y. p. piece was run lengthwise the box and a "U" bolt used to fasten these hubs in place, yet permitting each dial to turn freely without wear. Care must be taken that each dial is balanced so that it will stay in the position that it is set on the board.

The clock has a small pointer constructed to slide along the top of the board to indicate the time left to play. Four window pulleys are set in the board and a window pulley rope fastened to the pointer with which to move the pointer along the top of the board.

A small battery buzzer is attached to the board with wires running to the timer's table to a push button, with which the timer indicates to the board operator each minute expired. The small dial in the upper left hand corner has only four numbers, which will indicate the quarter being played. The dials are turned by hand, but by adding a pulley on the back side of the hub they could be turned by ropes and the board placed high in the gymnasium.

The itemized expense of construction is as follows:

35	ft. white pine	$ 5.25
4	24-inch (three ply panel) dials and	
1	12-inch (three ply panel) dial	1.90
5	front bicycle hubs @ 75c	3.75
5	iron plates to fit on hub @ 20c	1.00
5	"U" bolts @ 10c	.50
20	½-inch flat head stove bolts to hold panel to metal plates	.15
2	⅛-inch by 1 inch by 10 inch plates fastened flush on under side of board to divide the dials	.20
4	window pulley plates @ 15c	.60
15	feet window pulley rope	.20
1	large screw eye to hold rope to pointer	.05
1	pt. of white paint	.40
1	battery buzzer	.40
1	push button	.20
2	batteries @ 50c	1.00
100	ft. bell wire @ 1c	1.00
	Total material cost	$16.60

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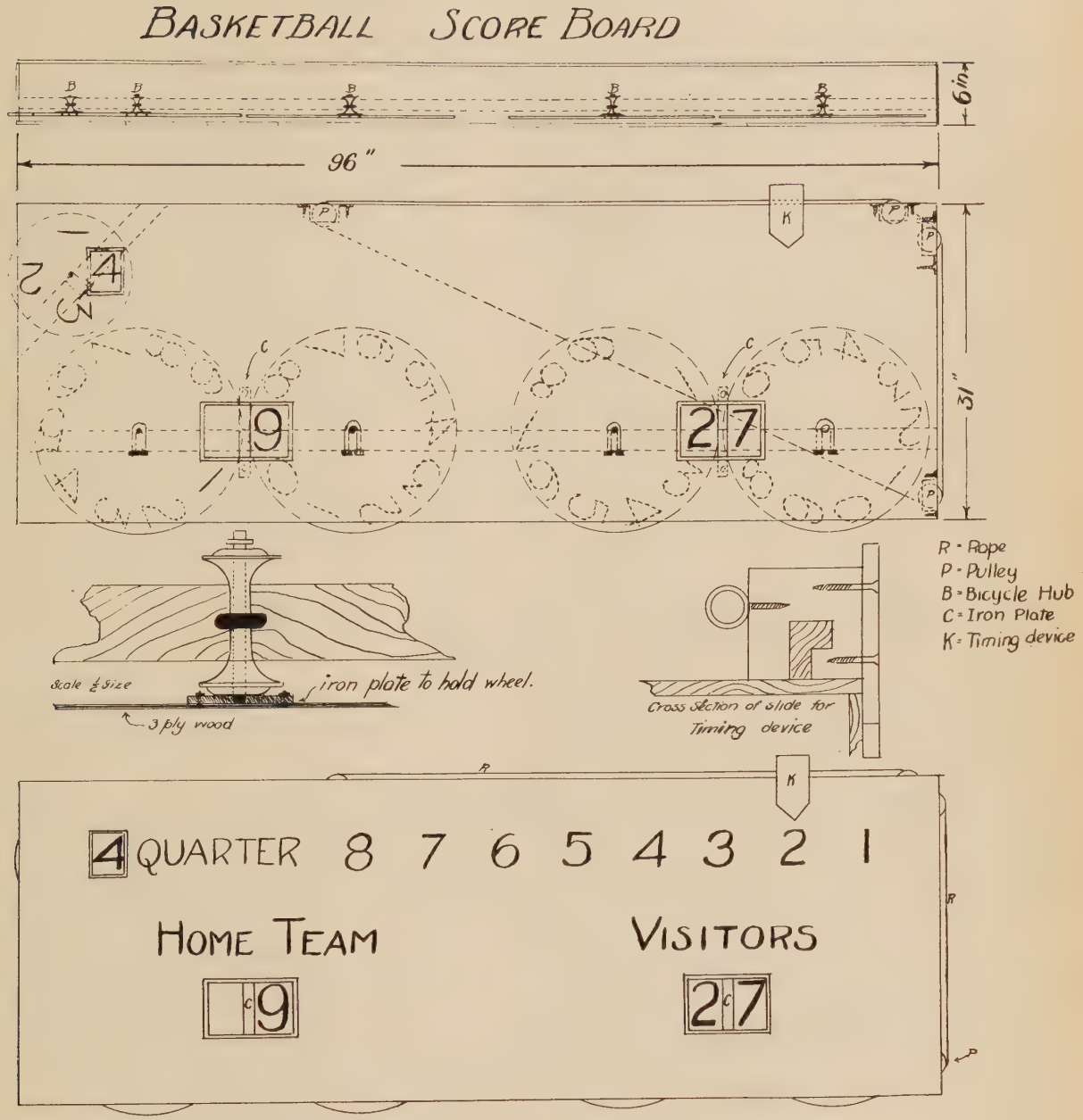

The score board was made and painted in the manual training shop by high school students and may be duplicated in any school shop.

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Teaching Tennis En Masse

GRACE HARTLEY

Director of Physical Education for Girls, Union High School, Palo Alto, California

DURING the past few years, tennis as a sport has been gaining favor by leaps and bounds. Tennis tournaments are drawing large crowds, and professional players have attracted attention to a game which, until recently, has been considered minor in importance. In cities, there is more and more demand for municipal courts, and privately owned courts are being built by many.

Although tennis is being taught in a few high schools, the importance of the game has not been recognized by school authorities nor by physical directors. An adequate number of courts has not been provided, even when space has been available, and physical directors have neglected tennis and stressed team games. Team games have many values, but are seldom played by adults, partly because of the difficulties of organizing teams and of finding suitable places to play.

Tennis is a valuable game for the following reasons:

(a) The space required for a court is relatively small compared to that needed for a hockey field or a baseball diamond.

(b) The equipment needed for the game is not prohibitive in cost, providing a court is available.

(c) Tennis provides all-around exercise, the variety of which cannot be surpassed by any other sport.

(d) All types of people, if physically fit, can play the game, whether old or young, stout or thin, agile or slow-deliberate.

(e) Tennis is adaptable to various abilities and inclinations. Two persons of the same playing ability may enjoy a game, whether they play a leisurely or a strenuous "nip and tuck" game, or whether they play an elementary or an advanced game.

(f) Tennis demands good sportsmanship. In no other game are courtesy and fair play recognized as desirable attitudes as in tennis.

(g) It brings enjoyment in accomplishment. Since it is so individual in character, the mastery of each new stroke brings keen satisfaction.

(h) It develops agility, muscle co-ordination and poise.

(i) Only two persons are needed for a game, whereas many persons are necessary for a team game such as basketball. Although it is fairly easy to arrange a tennis match with one other player, it is rather difficult to find ten or twelve adults who are willing and ready to play basketball at a given time.

Because of these values, tennis is one of the best games which may be carried over from school days to adult life. We as a nation, need such leisure-time activities as never before. Shorter hours of labor, and fewer days per week, are giving us more time for recreation than we have ever had. Instead of permitting commercial amusements to provide the only diversion from hum-drum living, we should see to it that adults have learned such skills in motor activity as will enable them to find self-expression and re-creation through wholesome play. The school can render a great service if it directs its proteges toward a wise use of their spare time, and arranges for the teaching of games which may be played both in school and out of school.

In order to teach tennis in the school, there must be adequate equipment—courts, and rackets and balls for those who cannot afford to buy them. Slightly used balls may sometimes be purchased from country clubs at very low cost. Dead balls should never be used. Most children can afford a ball, and many can buy rackets.

Tennis instruction should be given as low as the sixth grade. If courts are limited, paddle tennis may be taught. The following suggestions may prove helpful in class instruction.

Arrange the class in open order formation, each pupil with a racket.

Demonstrate a given stroke, explaining grip, foot position, change of weight, the place of hitting the ball, and the follow-through or finish. Give a mimetic drill, taking each position slowly. Repeat the drill several times, increasing the speed and force. Correct defects as the drill is given. A few cues are helpful in teaching form of strokes, such as (a) "Shake hands with the racket" for forehand grip; (b) "Keep the wrist behind the racket" for forehand swing-back; (c) "Stand sideways to the net" for forehand and backhand strokes; (d) "Swing back, up, drop and swing" for the service swing; (e) "Keep your eyes on the ball" for all strokes.

When most of the members of the class have a fairly good idea of the form of the stroke, it should be practiced with the ball. Driving the ball against a fence or wall serves very well for drill in forehand and backhand. Elementary players should bounce the ball at the beginning of each stroke; if they hit it as it bounces back from the wall, they get so interested in hitting the ball that they pay no attention to the form of the stroke. Intermediate and advanced players who have had drill in form should begin wall practice by driving the ball on the rebound.

The following practice events, with or without the scoring system, is a valuable method of motivating drill in strokes. The plan has been used by the author for the past five years in teaching three hundred high school girls in classes of from forty to fifty. The school has eight tennis courts and a gymnasium wall.

TENNIS PRACTICE EVENTS

Scoring: Each event completed satisfactorily scores 5 points.

Elementary

B	A
Forehand — 5 against wall. Start each with bounce.	10 over net. Start each with bounce.
Backhand — 5 against wall. Start each with bounce.	10 over net. Start each with bounce.
Service—Correct service swing. Serve against wall.	3 out of 10. Serve over net.

Intermediate

B	A
Forehand — 5 against wall in succession—on rebound.	10 against wall in succession—on rebound.
Backhand — 5 against wall in succession—on rebound.	10 against wall in succession—on rebound.
Service—3 out of 5 trials. Serve into court.	8 out of 10 trials with placement. (Scorer names place.)
Lob—5 on court. Start with bounce.	10 on court. Lob in rally.
Volley—3 on court out of 10. Volley in rally.	8 out of 10 trials. Volley in rally.

Advanced

B	A
American forehand on court (5 out of 10 trials).	Rally on court, using all strokes. (Strokes indicated by scorer.)
Forehand cut on court (5 out of 10 trials).	
Backhand cut on court (5 out of 10 trials).	
Cut service, getting height and placement.	

The Use of the Scoring Plan

If the scoring system is being used for the first time, it is well to give the drill to all. The practice is excellent for any player and an intermediate or advanced player can work through the events quickly. If the plan is used from year to year, players may start where they left off or review only part of the work which they have done.

As soon as pupils segregate themselves according to accomplishment, they should work in groups with a squad leader. Good players who are familiar with the plan can be of valuable service to the instructor by being leaders of squads.

After the first day or two of demonstration and drill on the first stroke given, the forehand, the work of the instructor consists of (a) testing those who have finished the required number of strokes in a given event, (b) demonstrating and drilling on a new stroke for those who pass the tests, (c) helping those who have difficulty with the strokes by giving more drill and individual instruction, (d) keeping a record of accomplishment for each girl.

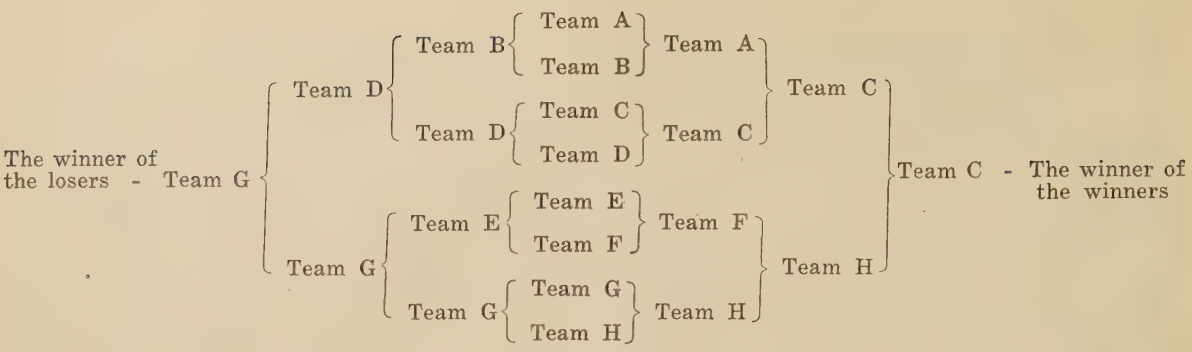
The class record is kept easily on cross-section paper, with the events listed at the top of the page and the names of the members at the left hand side. The records serve as a means of grading and the scores provide motivation. The scores may be kept from year to year, in which case they show the amount of progress made.

Practice events should alternate with the practice of the game; otherwise they become uninteresting and tiring. If the pupil realizes that he will improve his game by drilling on strokes, he will work harder than if he finds no reason for drill except raising a score in certain events.

Tennis tournaments add much to the interest in learning to play the game. Intra-period, inter-period, inter-club or inter-class tournaments may be arranged. There are two types of tournaments generally used, the round robin and the elimination.

The elimination type is arranged so that the first losers are out in the first round. Unless the players are seeded, that is, the best players are scheduled to play toward the end of the tournament only, this plan is not satisfactory, because some of the better players may be eliminated in the first round.

A modified elimination plan gives each player a chance to play at least twice. A losers' tournament is held as well as a winners'. This scheme is as follows:



A round robin tournament gives each contestant a chance to play in a series of matches, whether he wins or loses. The winner of the tournament is the one who has won the greatest number of matches in the tournament. A round robin inter-class tournament is arranged as follows:

Freshman - Sophomore
Freshman - Junior
Freshman - Senior
Sophomore - Junior
Sophomore - Senior
Junior - Senior

A tennis ladder is a helpful means of arranging teams according to the playing ability of the players. A soft wood or composition bulletin board in the gymnasium may be used for this purpose. The names of the players are written on slips of paper and tacked on the board with thumb tacks. Two types of ladder are shown below.

Type 1

M. Smith
J. Roberts
H. Gray
T. Davis
E. Allen
A. Moore
S. Ellis
D. Stuart
M. Greene

Rules: Challenge the first or second above you on the ladder. If you win, change your name with that of your opponent.

Type 2

M. Smith
H. Gray J. Roberts
E. Allen C. Myers T. Davis
M. Greene D. Stuart S. Ellis A. Moore

Rules: Challenge anyone in the line above you, or challenge to the right in your own line. If you win, change your name with that of your opponent.

A ladder may be started either by drawing names or by holding tournaments to determine positions. The first of these methods is the easier and quicker. Players soon find their places according to ability. A player on the lowest line on a ladder of the second type, described above, M. Greene, for example, may challenge one of many (anyone to the right or anyone in the line above). This quick change which is possible in the lower lines of the Type 2 ladder, makes it the more desirable.

Ladders may be made for both singles and doubles, or one ladder may be used for the two, thus:

First on the ladder—1st singles
Second and third—1st doubles
Fourth—2nd singles
Fifth and sixth—2nd doubles

Summary: Because tennis is a valuable game, which may be played by adults as well as by children, the school authorities and physical directors should arrange to teach it to many, instead of to a few pupils. The use of practice events, with or without scores, the holding of tournaments, and the arranging of players on ladders for determining teams, are valuable aids in teaching tennis to large numbers.

An Experiment with Corrective Gymnastics in the Elementary School

NELLE G. EVANS

Director of Physical Education for Girls, West Junior High School, Des Moines, Iowa

PART I

THE elementary school program in physical education, until recently, has been largely based upon games, singing games, folk dancing, formal or natural gymnastics —and rightly so. But today we are turning to a—should I say new?—No—a new interpretation of the old; that of teaching corrective gymnastics in the elementary school. This phase of physical education is now coming to have its place in the public school program below the senior high school.

For the past decade corrective gymnastics has been taught in the colleges, universities and high schools of our country, where it is much needed. To the junior high school and elementary school it is a new problem in physical education. Can it be worked out with children of this age? Why not? Of course, it is a very difficult problem and must be approached from a very different angle from that used by the college instructor. In short, it must be sold to the child.

To me it seems that the logical place for its beginning is in the elementary school. Here the mental and physical age of the child is plastic; and the task of implanting in the child mind the ideals that are necessary in order to gain good posture and to correct poor posture is much easier. Children are constantly forming ideas, habits, and attitudes regarding these matters. Why not begin this special training before poor or bad habits have developed to any great extent?

The physical education instructor has the advantage of working directly with the doctor and nurse for the good of the pupil. This is necessary for the development of a strong health department. Ideally, every child should have a physical examination every semester by a physician who is interested in the posture of school children. Unfortunately this is impossible in most school systems for various reasons. Let us say, then, that we must have frequent examinations. The nurse and physical education instructor should witness these examinations, and detailed records taken and placed in a permanent file for reference at any time. After the physical records of my children were taken from classes 3-B through the 8-A, I made the following chart of the findings:

Class—	3rd	4th	5th	6th	7th	8th
Posture +	15	26	6	17	30	17
Posture + +	6	7	3	2	6	9
A. P. Spine	2	1	3	1	1	4
Arches	4	6	4	7	9	5
Scoliosis	7	2	1	2	6	5
Chest	11	14	0	3	7	5
Normal	2	6	7	8	3	7

12.59% normal .
76.26% poor posture (by adding first five on chart).
11.15% weak or flat feet.

Posture + is used to designate students who are cultivating poor postural habits, but they have good muscle tone and can overcome them with a little directed thought. Posture + + is beyond the habit stage and the student needs a few special exercises to overcome the poor posture.

According to the doctor's examinations, one child may be developing kyphosis, another scoliosis, and still others developing two or more defects; thus in several cases there would be more defects than the number of children in the group.

The discovery of the above facts was quite discouraging. A plan was immediately formulated whereby we might further the interest of correct posture. First, there must be established in the mind of every child a proper attitude from which interest is an outgrowth. Remote aims of correct posture and its bearing on good health are not sufficiently interesting to a live, active boy or girl. Various means were used to help create interest. I was very frank with the children, explaining everything I wanted to put into the program, and after several weeks of preparation for this new phase of our class work, I asked the children if they would like to try to work out this new program. Some of the methods used to create interest were:

1. Explanations about the physical examinations, why they were necessary, what results we expected to get from them, and the bearing they had upon corrective gymnastics.

2. The plan of allowing the children not classified for corrective gymnastics in the senior high school to choose their favorite sport.

3. We had assemblies emphasizing health and good posture.

4. Children made up yells and words to familiar music.

5. One class made up a class playlet embodying the idea.

6. The children studied their posture before a mirror.

7. They made posters in the art classes.

8. Last, but not least, we studied the physiological reasons for maintaining good posture. One of the patrons in the district, a physician, loaned us a skeleton, which aided in our study of the body system and in studying its relation to corrective gymnastics. Needless to say, many lively and interesting discussions took place.

When I felt the children were ready, we organized three corrective groups, kyphosis, scoliosis, and feet, and one general group composed of those classified normal (no anterior-posterior or lateral curves of the spine). For the purpose of clarifying the terms used above, I will define the terms kyphosis, scoliosis, and feet. In the kyphosis group I placed all children who had round backs, round shoulders, and winged scapulae. Those who had simple curves in the spine to the right or left were put in a group and given special exercises to correct that condition. This composed the scoliosis group. The foot group was made up of those who had flat feet or weak arches. They worked upon exercises to improve the muscular condition. In all the groups, two or three general exercises were included to stimulate and improve the function of the systems of the body. After the children were assigned to their various groups, each child received a mimeographed copy of the exercises which, according to his physical examination, were best suited for him. A captain was selected for each group. They met with me from time to time for instruction in methods, and for general discussion of the problems that confronted them. It was the duty of the leader to conduct the exercises planned for his group. This organization gave me an opportunity to give assistance where it was needed and at the proper time. I often took time to explain the reasons for doing certain exercises, to dispel the feeling that they were doing something in which they could see no value.

After two semesters of this type of work a new survey was made, which resulted in the following classifications:

Class—	3rd	4th	5th	6th	7th	8th
Posture +	12	9	5	8	7	3
Kyphosis	13	26	16	11	12	15
Scoliosis	4	13	13	5	10	18
Arches	1	5	6	4	6	2
Normal	13	2	6	6	7	6

17.3%. normal.

73.7% poor posture (adding first three).

9.0% weak or flat feet.

In this chart posture + + has not been eliminated but rather absorbed in the special groups (kyphosis, scoliosis, and feet), where it really belongs.

At the end of the fourth semester of the work another survey brought the following facts:

Class—	3rd	4th	5th	6th	7th	8th
Kyphosis	22	25	28	18	27	21
Scoliosis	3	7	9	4	7	3
Arches	0	7	11	8	7	7
Normal	23	22	14	13	5	10

28.9% normal.

57.7% poor posture (adding first two).

13.3% weak or flat feet.

The improvement was not very great in numbers, although some definite gain had been made and it was encouraging to the instructor.

Elementary children are interested in corrective gymnastics and can see a value in it when they will ask to go in certain groups where they may derive certain benefits. A 5-B boy asked if he might take the foot exercises with the foot group as his feet were hurting him. This is only one of many instances that occurred to make us feel our work was worth while.

The success of this type of program depends upon the time the instructor is willing to give to it outside of the class period. First a survey must be made, after the physical examinations are conducted, to find out what kind of remedial work is necessary. She must work out the exercises for the groups, type them, mimeograph them, plan the class organization and then execute the plans. She must anticipate problems and be prepared to solve them.

In the charts used, you will notice, I have given the records for the third grade. No special group work was given except what I gave in general exercises to the class as a whole. These children had just come into the departmental system. They were new to me and I to them, so we had to become adjusted to one another. I believe they are too immature to enter into such a highly organized plan of work.

PART II

The comments of the children regarding the above program may help you decide whether or not a program of this type is worth while. Another teacher in the building, having nothing to do with my department, was asked to give the children the questions and secure the answers in writing. She graciously consented. We wanted to know how they honestly felt about the work they had been doing the past two years. I made note of some of the comments made by them. The English has not been changed from their way of stating it.

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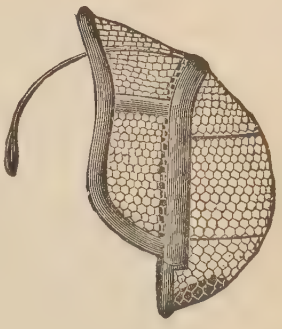

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I. Has corrective work helped you? 87.5 per cent answered yes; 11.2 per cent answered no; 1.3 per cent didn't know.

Comments

4-A Class:
"Helped my feet."
"I think my back is straighter."
"Yes; taught me some things I shouldn't do."

5-B Class:
"Helped me to want to straighten up."
"Helped me, because I don't have to wear my shoulder braces any more."

6-A and 6-B Classes:
"My feet don't hurt any more; yet don't like them because it's so dry."
"They have not helped me because I haven't worked hard enough."

8-A and 8-B Classes:
"Helped my side."

II. Do you think corrective work worth while? 97.5 per cent answered yes; 2.5 per cent answered no.

Comments

5-B Class:
"Yes, if you help keep your posture better."

5-A Class:
"Helped me to think more about my posture."
"Outdoor sports are better."

7-A and 7-B Classes:
"They are worth while, while they last."
"May be worth while, but I don't like them; better for little children."
"If you are born with a round back, you'll have to stay that way."
"Not worth while for the feet."

8-A and 8-B Classes:
"It is interesting to watch your improvement."
"They have helped my side . . . no pains now."

III. Do you enjoy the corrective part of physical education? 76.8 per cent answered yes; 23.2 per cent answered no.

Comments

5-B Class:
"I enjoy taking these exercises because it is helping me all the time and yet it is like play."
"Don't get tired of them."
"Makes me feel better."

5-A Class:
"It is fun."
"I like them because they are just like play."
"Don't get tired of them."
"Makes me dizzy."
"I get plenty of exercise walking."

6-A and 6-B Classes:
"Gives me pep."
"Makes me feel good."
"I like it because I get to use the stall bars."
"They are fun."
"It is fun to have leaders from your class."
"Teacher gets after you when you slouch the least bit."
"Makes you stand erect when school first starts and you're not used to it."
"Don't like them."
"Too hard."
"Leaders are too lifeless."
"Makes me tired."
"I think it is a bore."

7-A and 7-B Classes:
"You are fresh for the next class."
"Enjoy them because they are helpful and do good as well as the fun that is in them."
"I have learned how to take care of my feet."
"Too tiresome; but I know they do me good."
"Don't know why I dislike them, but I do."
"Takes too much time."
"I get plenty of exercise without them."

8-A and 8-B Classes:
"Feel better after taking them.
"It's fun."
"Do not enjoy them but realize its value."
"Tiresome."
"Don't enjoy them, but as long as they help me am willing to do them."
"Don't especially enjoy them but don't mind them.

As educators, we get an insight into the minds of a group of children when they are expressing themselves in this way; and this gives the instructor a basis upon which she may build more intelligently. The big thing for us, after all, is to create in the children the right attitude toward the body and a desire to keep it fit at all times, so that they may reap the joy and happiness of good health.

Natural Activities on Apparatus

J. H. McCULLOCH

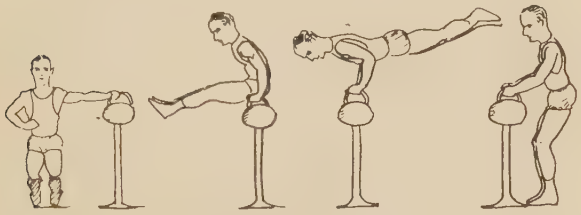
Professor of Physical Education, Michigan State Normal College, Ypsilanti

(Continued from January Issue)

EXERCISES ON THE SIDE HORSE

SERIES III

I. (a) Approach; run and grasp pommels.

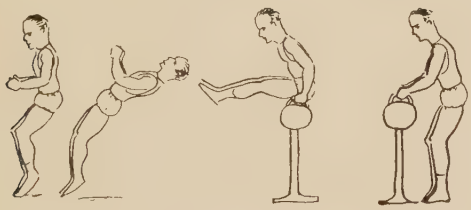


(b) Jump to momentary front lever. Arms should be kept straight, weight well forward over the horse, the legs thrust backward and upward until the body is parallel to the floor and back arched.

(c) Squat vault to the mat. Legs are flexed and quickly snapped through the saddle. Retain grasp on pommels until legs are through.

Vary with quarter or half turns R or L.

II. (a) Approach; run and grasp pommels.

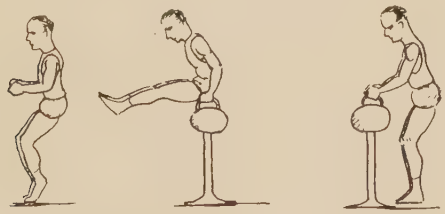


(b) Squat vault to momentary back-lever. Retain grasp on pommels and thrust legs out straight, arching back.

(c) Dismount; push off from pommels to mat.

Vary with quarter or half turns R or L.

III. (a) Approach; stand grasping pommels.

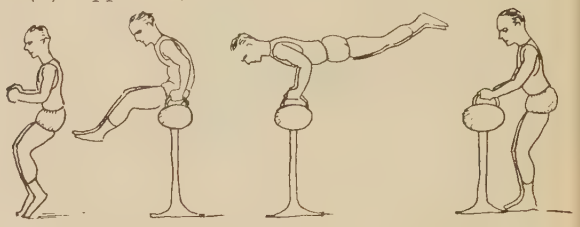


(b) Vault to knee leaning rest in saddle.

(c) Dismount; snap the legs through the saddle, doing squat vault to mat.

Vary with quarter or half turns R or L.

IV. (a) Approach; run and grasp pommels.

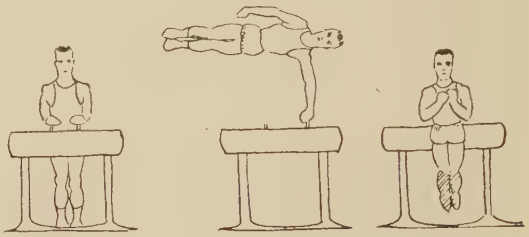


(b) Momentary front lever.

(c) Squat vault to momentary back lever.

(d) Dismount; to mat with quarter or half turns R or L.

V. Side or flank vault.



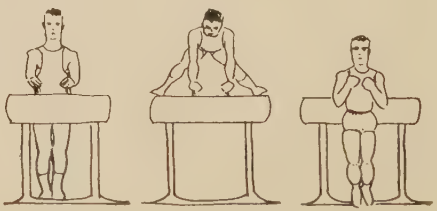
(a) Approach; run and grasp pommels.

(b) A side or flank vault R or L. Legs should be straight to the side and back arched. In vaulting R, weight should be directly over left arm and right arm quickly released from the pommel.

VI. Wolf Vault.

(a) A wolf vault R or L. On the R, the right leg is extended straight to the side and the left leg is bent and passes over the saddle, weight is on left arm, which is released as you pass over the horse.

VII. Straddle Vault.



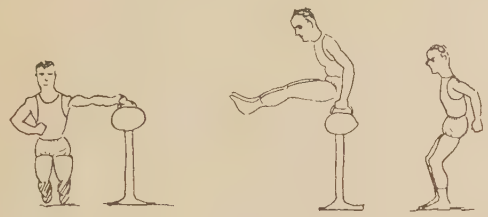
(a) Approach; run and grasp pommels.

(b) Straddle vault. Thrust body upwards with arms and spring from mat, legs extended sideways and knees kept straight.

Vary with quarter and half turns L or R. The turn is aided by whipping the legs together.

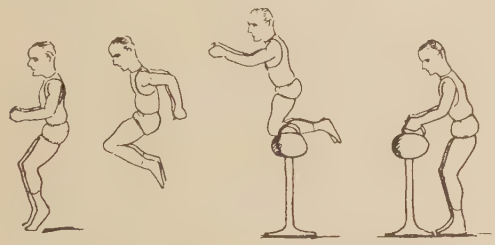
VI and VII may be executed from a momentary front lever.

VIII. Thief Vault.



(a) Approach; run and leap, passing legs through the saddle without use of hands.
(b) Grasp the pommels as the body passes over the saddle, extending legs straight out in front.
(c) Dismount; to mat with or without quarter or half turn R or L.

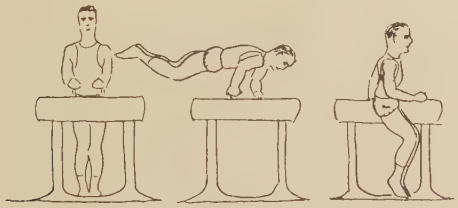
IX. Sheep Vault.



(a) Approach; run and grasp pommels.
(b) Thrust body upward with sharp push on pommels; vault over the saddle, flexing legs only. Thighs are kept extended.

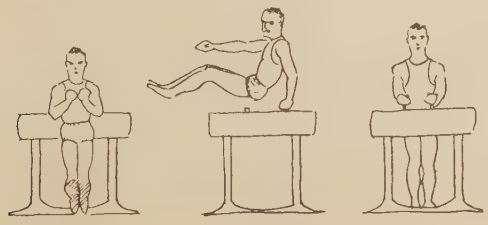
This is a very difficult vault to execute properly.

X. Front Vault.



(a) Approach; run and grasp pommels.
(b) Vault sideways and make a quarter turn toward the apparatus, so that front of the body passes over the apparatus. The vault may be executed well above the apparatus.

XI. Rear or Back Vault R.



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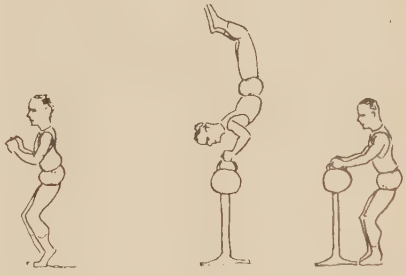
(a) Approach; run and grasp pommels.
(b) Vault sideways to right, releasing right hand and flexing thighs. The body makes a quarter turn so that the back of the body is toward the apparatus. The hips should pass over the saddle. Release the left hand and regrasp pommel with the right.

Vary with quarter or half turns R.

Note—Common mistakes are to let the hips pass over the croup. The weight should pass directly over the saddle and above left hand. Another mistake is to vault too high, which throws you off balance.

XII. Rear Vault L.



Executing above to the left. Vary with quarter or half turns L.

NOTE—In vaulting take off close to the apparatus. Taking off too far back gives too much forward momentum and throws the performer off balance. Keep the weight close to the base of support. Use the apparatus as support for the weight. Don't fly over it. Strive for body control.

The next article will deal with a series of exercises on the long horse and on the buck.

Suggestions on How to Start a Chapter of the Sportsmanship Brotherhood in a School

DANIEL CHASE

Secretary, Sportsmanship Brotherhood, New York City

THE principal, director, or someone who knows how to talk to students should first discuss sportsmanship with the student body at assembly. Stories taken from the handbook on sportsmanship and inspiring poems like the ones by Edgar Guest, Berton Brayley and Sir Henry Newbolt may be used to good effect. The Code of Sportsmanship should be carefully read and its application in athletics and other school activities explained.

WHAT IS THE SPORTSMANSHIP BROTHERHOOD?

An organization to foster and spread the spirit of sportsmanship throughout the world.

Its motto is "Play Fair."

The Code of Sportsmanship—
Keep the rules.
Keep faith with your comrade.
Keep your temper.
Keep yourself fit.
Keep a stout heart in defeat.
Keep your pride under in victory.
Keep a sound soul, a clean mind and a healthy body.

"Play the Game"

Next, the students should be asked if they agree with the Code of Sportsmanship and the motto "Play Fair," and if they wish their school to unite with other schools, colleges and clubs in an organization whose aim is to foster and spread the spirit of sportsmanship throughout the world.

If the student vote is favorable, they may then be asked if they are willing to take the following pledge as individuals: "I will do my best, in all the activities of life, to play fair and keep the Code of Sportsmanship." This pledge may be taken by the entire group, standing with the right hand raised, holding an imaginary torch, repeating in unison after the principal. The torch is the symbol. Its use is optional.

This is the word that year by year,
While in her place the School is set,
Every one of her sons must hear,
And none that hears it dare forget.
This they all with a joyful mind
Bear through life like a torch in flame,
And falling, fling to the host behind,—
"Play up! Play up! And play the game!"
—Sir Henry Newbolt.

In a state where the athletic association or some other group is an organization member of the Sportsmanship Brotherhood, a local school may secure its charter from the proper officer of that association. If there is no state organization member having jurisdiction, the school may apply for charter direct to Daniel Chase, Executive Director, the Sportsmanship Brotherhood, 342 Madison Avenue, New York City.

The next move in organization should be the election of officers and appointment of committees. In many schools the officers of the student council already existing, or of the school athletic association, are designated to serve as officers of the local chapter of the Sportsmanship Brotherhood and no new machinery is necessary. Special committees may be assigned, (1) to report on sportsmanship exhibited in the different interscholastic games; (2) to consider ways of encouraging and recognizing good sportsmanship; (3) to arrange assembly programs, dramatic presentations, discussion of topics, debates, poster displays, etc.; (4) to help look after visiting teams and spectators to see that they are treated as guests; (5) to work on problems of presenting sportsmanship to spectators; (6) selection of adult sponsor.

The chapter is privileged to award to its most representative sportsmen each year the copyrighted bronze emblems carrying the design of the Sportsmanship Brotherhood. Both sexes are equally eligible. The number of students who may thus be honored is limited according to the size of the school, ten awards being the maximum for a small school, twenty the maximum for schools with 300 enrollment and thirty for schools with 500. Schools with 500 to 1,000 pupils are allowed forty awards, and schools of more than 1,000 would be allowed fifty. These pins or buttons cost fifteen cents each and may be ordered direct from the official supply house.

The usual method followed in selecting the students who will thus be honored at the end of the year is to secure a composite opinion of the student body and faculty. The general attitude of the student is of primary importance. Sportsmanship is a quality which may be exhibited by a student suf-

fering from a physical handicap which would prevent him or her ever becoming a member of any athletic team. It is tested by daily conduct in the classroom and the corridor, as well as on the playground or in the gymnasium. The candidates who prove themselves physically fit, which means having all remediable defects corrected, must then prove to the satisfaction of student associates and teachers that they are really living the Code of Sportsmanship. The votes of the students indicate their opinion and will serve two purposes — informing members how their conduct has impressed their fellows and giving the principal and faculty leaders a line on what the students themselves conceive sportsmanship to be. If it is decided to award the honor emblem or recognition button the students selected to wear it should receive it on some public occasion when the significance of the award and all that it stands for should be explained. Some chapters use a simple ritual which has helped to make the presentation impressive.

There are many important tasks to which the school chapter should apply itself, particularly the educating of the general public to its obligations in sportsmanship. The use of suggestions in programs, posters and in local papers has been found helpful. The school paper can be very useful, and supplies of inspirational poems and stories are available. The headquarters office of the Brotherhood will assist chapters by serving as a medium for the exchange of ideas and programs, by securing speakers, the arranging for state, district and national conferences, and by maintaining a clearing house for all matters having to do with the technique of the development of the spirit of sportsmanship. It publishes a monthly magazine called "Sportsmanship," which goes to all active and associate chapters and unit members of the organization, and is available to the general public at the subscription rate of one dollar per year.

Lewis W. Smith, former secretary of the National Federation of State High School Athletic Associations, says:

"The code of honor of a sportsman put forward by the Sportsmanship Brotherhood seems to be to represent the essence of good conduct in almost any situation, whether in sport events or others. Many of the trying problems in our national life would be solved if this code were operative in the minds of men, and probably international difficulties would vanish. I know of no more appropriate way for these standards of good conduct and the spirit of sportsmanship to become prevalent than the definite drive made for them by the organization known as the 'Sportsmanship Brotherhood.' It is true that everyone in charge of amateur athletics has these standards more or less in mind, but there are so many details to be looked after in the conduct of amateur games that true sportsmanship does not have the emphasis it should have. There is room for the work undertaken by the Sportsmanship Brotherhood. I am sure it is going to make a large contribution to our common life."

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—Grantland Rice.

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The foe that comes with fearless eyes.
To count the life of battle good,
And dear the land that gave you birth.
But dearer yet the Brotherhood,
That binds the brave of all the earth."

—Sir Henry Newbolt.

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Mass Instruction in Boxing

L. M. PHILBIN

Boxing Instructor, University of Michigan, Ann Arbor

BOXING is steadily growing in popularity as a beneficial exercise. It has long been a competitive sport in which professionalism has been the ultimate goal. But recently, however, as the scientific viewpoint of boxing has been more emphasized, the sport has gained a large following in amateur circles and attention has been given to its developmental and co-ordinating qualities.

The recent war did a lot to introduce boxing as a means of exercise rather than a mere physical combat. The famous Gibbons brothers of St. Paul, and Benny Leonard, devised systems which have proven most efficient in teaching boxing to a large group. These systems have been revised and altered from time to time and are now used in a large number of gymnasium classes and in the athletic programmes of many universities and private gymnasiums.

Boxing is an activity that requires, and consequently will develop, the highest type of co-ordination between mind and body. It will develop speed, skill, endurance, grace, mental alertness, and courage. It develops confidence because of the personal satisfaction and feeling of self assurance.

The periods of boxing should be regulated and carefully systematized. The most important factor in the whole work is to **be careful.** Do not let your work be tarnished by a single injury, however slight. The danger is greatly reduced and practically eliminated if the proper procedure is followed.

The first step in any form of boxing, whether mass or individual instruction, is to improve the general physical condition. The first requisite is good health, and if one is not in good condition he is liable to be discouraged with the slow progress of his boxing. The first few weeks of building and preparing should consist of jumping rope, pulley exercises, dumb-bells, parallel bars, horizontal bars, and calisthenics. These are all beneficial in starting the beginner. Boxing in mass formation should never precede these forms of activity.

When this conditioning has been satisfactorily completed, the procedure in a large class should be as follows:

Have the class in regular formation as for calisthenic drills, with proper spacing and so forth. Then demonstrate as instructions are given. The commands should be preceded by demonstrating with the class sitting on the floor so that all may see, or have the members stand if demonstrations are made on a small platform elevated for that purpose. The first instruction should consist of fundamental boxing position, which should be as follows:

1. **Feet**
   (a) Obliquely right.
   (b) Weight of body equally distributed on balls of both feet.
   (c) About eighteen inches apart.
   (d) Be sure to have feet in same direction.
2. **Legs**
   (a) Both legs bent slightly.
   (b) Left knee over foot.
3. **Trunk**
   (a) Bent slightly to the right and forward. (This position affords protection to the "vital" spots by allowing elbows to cover them.)
4. **Arms**
   (a) Right bent at elbow and laid across chest with palm inward and elbow close to side.
   (b) Left bent at elbow and close to side to protect heart; hand raised about level of opponent's shoulder.
   (c) Thumb up; palm to side.
5. **Head**
   (a) Chin down; eyes fixed on opponent.
   (b) Chin should be behind shoulder for protection.

Fundamental Boxing Position

All leads and blows are made from this position, which will put the boxer rather sideways to his opponent and afford him considerable protection. If he faces his opponent he is exposing many surfaces for openings. Another reason for the sideward stance is that he can reach farther in this way. Demonstrate by standing facing an opponent and slowly reach out the left hand. Place it on opponent's shoulder and then turn sideways and show additional reach gained by that position.

After the fundamental boxing position is explained, tried, and corrected, the next step is to explain and demonstrate movements of the feet. These are very complicated to the average individual but may be simplified by explaining as follows:

(1) Always keep weight forward, regardless of direction in which you are moving. This enables one to counter effectively from any position or after any move.

(2) In advancing, step the left foot forward and drag the right along the floor the same distance as the left was advanced. Keep knees bent and weight on balls of feet. Never bring the right up to the left for it will narrow the base, and the result is the loss of balance by slightest blow or shove.

(3) In moving backward, step the right foot back and drag the left foot back the same distance as the right was moved. Keep the body forward and weight on both feet so that effective counter may be made at any time.

(4) In moving to the right, step with right foot and drag the left foot, keeping the feet the same distance apart. This is just moving both feet in parallel lines, but right should precede left.

(5) In moving to left, step left and drag right in parallel line with movement of right.

Then practice the movements by counts, advance step with count one for step of left foot and count two for dragging up right foot. This should be done about five steps to the front. Then take back step by counts in the same manner. After having done this a number of times, with the number of times being regulated by size of class and ability of participants, try the right step by counts and then the left step by counts.

Dr. George May, gymnasium instructor of the University of Michigan, has found it most successful to use five advance steps, five reverse steps, and five side steps each way.

This should be followed by instruction in the left lead, the most important blow in boxing. It is used both as a defense and offense. Give instructions as follows:

From the fundamental boxing position, step left foot forward, extend left arm, turning the palm down and turning the body slightly so that when this is completed the position should be differentiated from the fundamental boxing position as follows:

(1) Feet.
   a. Farther apart—the distance being regulated by the position and movement of the opponent.
   b. Both still obliquely right and in same direction.

(2) Legs.
   a. Both bent, but the left is bent farther as a means of "follow through" in leading. The weight may be shifted forward into the blow after the foot has been advanced by bending the left knee forward.

(3) Trunk.
   a. Same as in fundamental boxing positions except that it is turned more to the right to increase the reach and afford the "snap" into the blow.

(4) Arms.
   a. Right should be same as in fundamental position for protection.
   b. Left should be straight. The arm, wrist, shoulder and chest should all be in straight line.
   c. The palm should be turned down when the blow is landed.

(5) Head.
   a. Chin down and behind the shoulder. Eyes should be looking at the arm.

Instruction in the Left Lead

This should be explained and demonstrated to the class and then worked by counts as follows:

The command to have the class assume the fundamental boxing position is "guards." Then have them extend left as explained above and at the same time stepping forward on the count of one. Have them hold the position while instructor looks over the class, correcting the various defects throughout. Also explain that the left arm should be fully extended just before the foot lands so that the weight of the body is behind the blow. If this is not adhered to, the weight will be on the left foot and not in the blow.

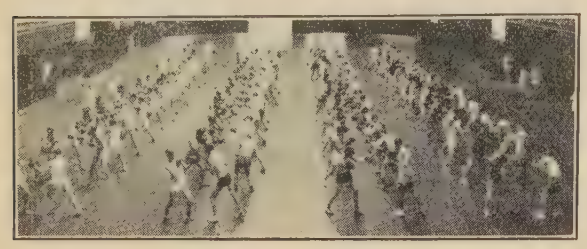
Be sure to see that the knees are bent and the chin is down to prevent anyone from being too high to afford adequate protection. The best illustration of the impossibility of boxing without the knees bent is that "a man can't box on stilts." This comparison will give the beginner an idea of what you are trying to attain.

After you have looked over your class, give count two, which should signify dragging up the right foot and pulling the left hand back into place. Make sure that the weight is being kept on the balls of the feet and that the left hand is not dropped down before bringing back the guard position. This is quite necessary, for it will tire a man to be picking up his left hand after dropping it; and while he has it dropped he has no protection. Every time he goes to make a left lead, he will have to pick up his hand, and this not only causes delays in the de-

livery, but gives a signal for the opponent as to what his next move is going to be.

Repeat this "one-two" exercise five times and then take the back step five times. Do this a sufficient number of times until you are satisfied with the results.

Then have your class "fall in" and count off by twos. Have numbers one and two face each other as opponents. This method usually gives a quite equal match, although there should always be a check-up by the instructor to prevent any mis-match. With the men "at ease" on the floor, illustrate the next movement.



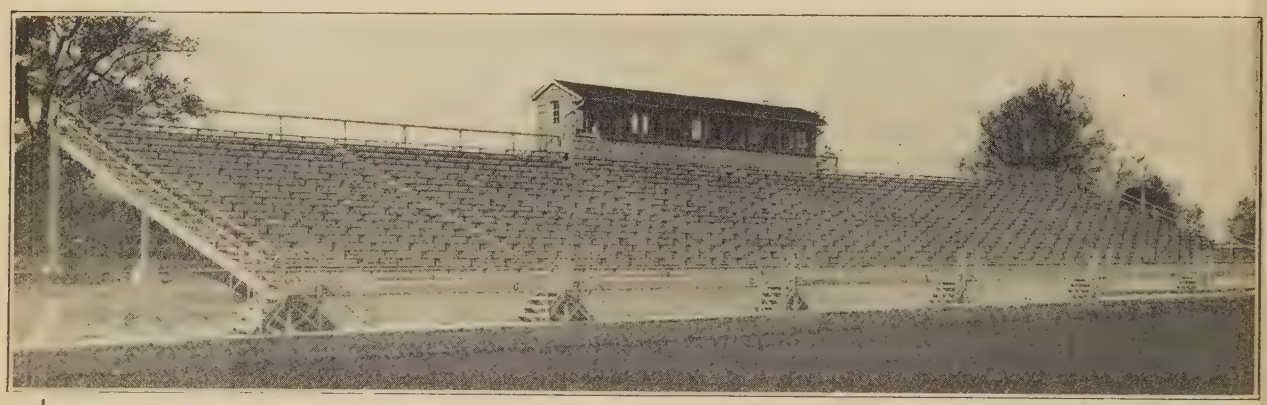
Class Boxing Instruction

No. two takes fundamental boxing position and turns right glove up so that it is protecting his chin with the palm outward. No. one at the count of one makes a left lead to opponent's chin, which is covered by glove. While this position is held for some time the instructor looks over the class and brings the class into boxing position by the count "two." This is repeated five times or more and then the positions are reversed. No. two executes the left lead while No. one glove-blocks the lead.

After this has been done about five times reverse again and have all those numbered one execute a left lead same as before except "out and in" on the one count. That is, with the men in boxing position and with No. two prepared to glove-block left lead at the count of "one," No. one executes a left lead and goes back to guard position without waiting for additional count. This should not be hurried, but each movement should be thorough and decisive.

Repeat this five times and then reverse so that number one glove-blocks while number two executes the lead.

The next article will deal with some advanced movements in boxing which can be taught in class formation.



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Diving Chart

Arranged by EARL RISKEY, *Intramural Department, University of Michigan*
Use of figures by permission of E. J. MANLEY, *Swimming Coach, University of Illinois*

MANY of the swimmers that frequent our swimming pools consider diving beyond their possibilities. They hold the opinion that this form of endeavor should be left to the expert. Many do not know the dives by name.

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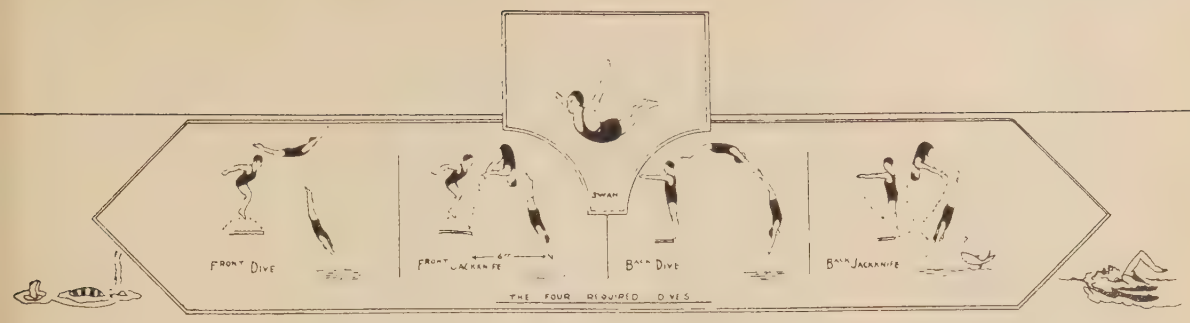
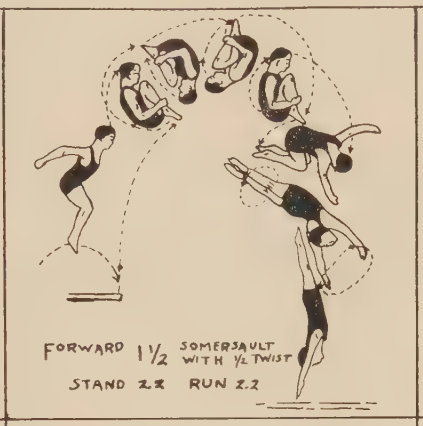
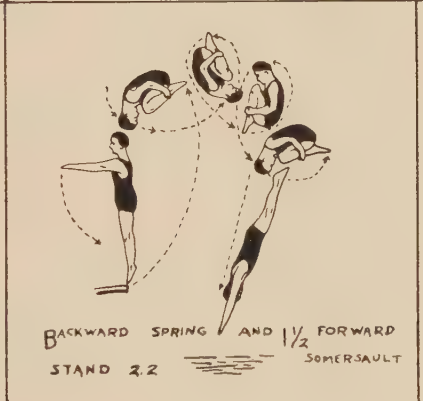


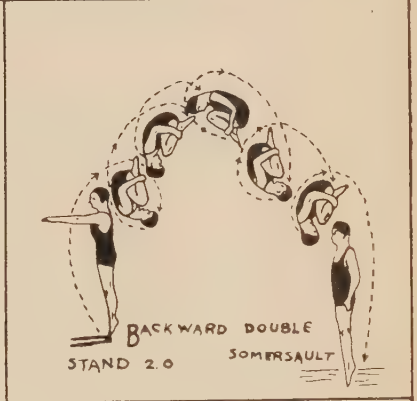
FORWARD SOMERSAULT WITH ½ TWIST
STAND 1.7 RUN 1.7


FORWARD 1½ SOMERSAULT WITH ½ TWIST
STAND 2.2 RUN 2.2

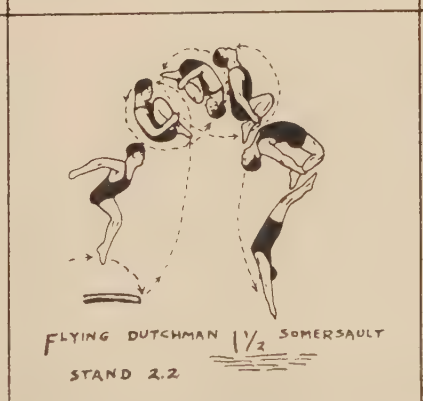
FORWARD DOUBLE SOMERSAULT
RUN 2.2

BACKWARD SPRING FORWARD SOMERSAULT
STAND 1.9

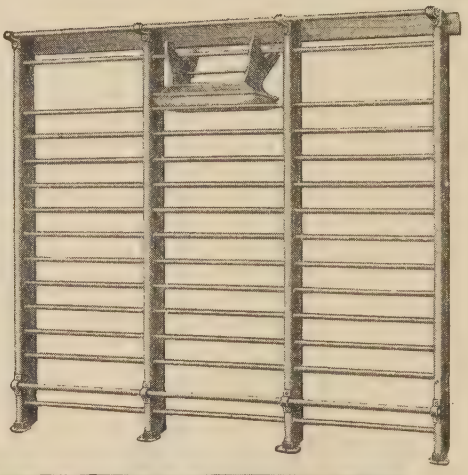

BACKWARD SPRING AND 1½ FORWARD SOMERSAULT
STAND 2.2

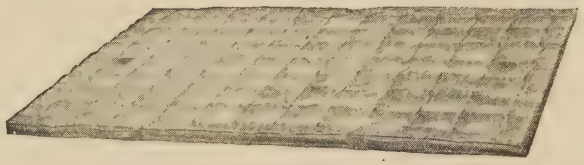

BACKWARD DOUBLE SOMERSAULT
STAND 2.0

FLYING DUTCHMAN 1/2 TWIST
STAND 1.7 RUN 1.7


FLYING DUTCHMAN 1½ SOMERSAULT
STAND 2.2

BACK JACKKNIFE 1/2 TWIST
STAND 1.9





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Cleveland Experiments with Physical Ability Tests

(*Concluded from page* 9)

scores of senior high boys. This is because of the change from the 50 to the 75 yard dash and the change from the 8-pound to the 12-pound shot. A mathematical solution has been evolved which statistically appears to be sound procedure. However, to obviate the necessity for the use of any mathematical transposition for comparative purposes, the two tests will be identical in the future, with the 50-yard dash and 8-pound shot being used.

A word regarding the physical ability index of a boy. Briefly it is a figure giving his physical ability as shown by the test, as compared with the average physical ability of boys of his age and weight. See the example at the bottom of the table of norms. Any figure greater than unity indicates a physical ability greater than average. Any figure less than unity indicates a physical ability less than average.

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Boys' Physical Ability Test Norms for Age and Weight

Weight	11	11-6	12	12-6	13	13-6	14	14-6	15	15-6	16	16-6	17	17-6
181-185												628	632	635
176-180											612	620	625	630
171-175										579	594	605	617	622
166-170									558	568	581	590	610	614
161-165									545	551	566	580	590	601
156-160								501	526	535	555	570	576	588
151-155							440	498	509	522	535	550	567	576
146-150						396	425	479	493	510	524	530	559	565
141-145					375	385	410	459	475	494	497	514	540	544
136-140				351	360	374	394	438	457	478	480	499	520	520
131-135			332	342	350	369	385	423	439	458	463	479	505	512
126-130		315	327	331	340	352	368	407	422	440	448	460	490	505
121-125	287	309	319	322	330	344	360	391	409	418	429	447	472	490
116-120	282	300	308	311	321	330	343	366	387	396	410	435	455	475
111-115	278	288	295	299	309	317	327	347	366	378	394	415	442	457
106-110	275	276	283	288	296	304	311	330	346	360	378	395	430	440
101-105	258	360	266	271	278	285	291	302	323	345	363	375	410	413
96-100	244	247	253	259	266	272	277	280	301	330	348	355	386	391
91- 95	224	228	238	242	259	255	259	264	278	298	313	321	340	355
86- 90	205	210	225	229	237	242	245	249	255	268	278	286	295	320
81- 85	198	202	212	216	223	230	236	245	252	261	269	273	280	295
76- 80	191	194	200	205	212	220	229	238	248	255	260	261	265	270
71- 75	179	180	186	191	197	204	212	221	231	239	242			
66- 70	167	169	176	181	186	193	201	210	221	232				
61- 65	156	158	164	169	174	179	185	192						
56- 60	145	147	150	156	161	163	168							
51- 55	134	137	140	146	153									
46- 50	124	127	130	137										

To find P. A. I. (Physical Ability Index)

Name Gaubatse, Henry

Age 14-3 Grade 9B5

Weight 93

Physical Ability Test Score 289

Junior Normal Test Score 259

$$\text{P. A. I.} = \frac{287}{259} = 1.12$$

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Intramural Athletics in the High School

(*Continued from page* 19)

mural Championship" with the letters L. H. S. in the center. They are in the form of a lapel button, with a screw back so that they can be easily fastened to a sweater or coat. The first time a boy is a member of a championship team in a school year he is awarded a bronze button, the second time he is given a bronze-art one, the third time he is awarded a silver button, and for the fourth championship he is given a gold one. The above method seems to be very satisfactory as it gives a boy something to work for all the time. Last year three boys earned the gold buttons. However, before a boy is eligible to receive such an award, he must have been present every time his team was scheduled to play a game. No excuses are accepted. This one requirement tends to have almost a 100 per cent attendance of the team members for every contest, and it is very rarely necessary to forfeit a contest for the reason that a team did not appear.

For all individual sports, such as horseshoes, tennis, cross country, and the all-around athletic tests, medals are awarded the winners. For horseshoes and tennis a gold medal is given the champion, and the runner-up is given a silver medal. The cross country champion is awarded a small loving cup, a silver medal is given for second place, a bronze medal for third place, and ribbons are given for the next eight places. Every boy who passes the all-around tests is awarded a small gold medal. It would not be possible to promote the more individual sports without some award for the winner. A rather inexpensive medal is a great stimulus for such sports and tends to draw a great many more entries into the tournament.

It might appear, at first sight, that such a program would involve considerable expense, but such is not the case. Until the last part of the first year, when medals were awarded to championship teams, there was no expense whatsoever. During the last year, when all winners were awarded medals or buttons, the program has increased slightly in cost. The approximate cost for ribbons, buttons, and medals for the year of 1927-1928 was $45.00. Including the cost of sweat shirts, awards, printing of handbooks, and other incidentals, the total would not exceed $100.00.

The only source of revenue for the department is the admission fees which are charged for the annual Intramural Festival. The first year that the festival was held it yielded the department $108.00, while last year the amount was less, owing to a rainy night. Through this one source of income the department has been able to establish a fund, which is drawn upon to finance a great many incidentals.

A new undertaking of the department last year was the publishing of an Intramural Handbook. The purpose of the handbook was to furnish the high school pupils with all necessary information relative to the various sports that were being conducted, eligibility rules, awards, etc. As the program grew to be rather extensive and far reaching, many questions arose about the various sports. It became necessary to establish definite eligibility rules, especially for the lettermen of the interscholastic sports, and it was very desirable to have the pupils know the general plan of the program. To this extent the inexpensive handbook has served a two-fold purpose.

The program is conducted as an extra-curricular activity. All contests are held after school hours, with the exception of

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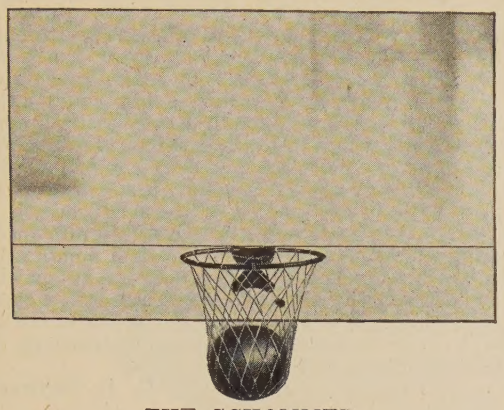

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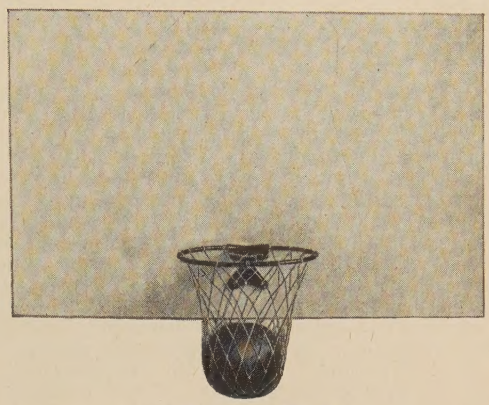

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some of the first round matches in tennis and horseshoes. It was practically impossible to conduct these tournaments after school, so some pupils were allowed to play off their matches during their regular physical education period. While the intramural athletics are carried on as a part of the physical education program, yet participation in the various sports does not fulfill the physical education requirement. Every pupil must take the regular physical education work, unless he is a member of an interscholastic team, during which time he is automatically excused. Occasionally a pupil is excused from a physical education period if he is going to compete that evening, providing the director considers his excuse a legitimate one.

Following is the report of the department for last year, which was compiled at the close of the year:

INTRAMURAL PARTICIPATION FOR 1927-1928

The total entry list for the past year, 1927-1928, came to 1,568. This total shows an increase of 217 over the previous year. The following chart shows the various sports offered last year, together with the number of teams, individuals, and contests:

Sport	No. Players	No. Teams	No. Contests
A. A. U. Tests	17		
Baseball	87	8	9
Basket Ball	232	34	64
Boxing	15		11
Cross Country	34		4
Diamond Ball	84	12	12
Foul Throwing	196	42	41
Horseshoes	125		123
Indoor Baseball	147	15	26
Ice Carnival	55		
Ice Hockey	58	10	8
Indoor Festival	95		
Speedball	138	12	20
Tennis (Spring)	94		102
Touch Football	54	6	11
Track and Field	35		1
Volley Ball	81	12	21
Wrestling	21		15
	1,568	151	468

It was found that 353 different individuals participated in one or more sports during the year. During the school year there were approximately 450 boys enrolled. Seventy-eight per cent of the total number of boys enrolled were reached through the organized activity of the intramural department. It must be considered also that several boys were physically unfit to participate in the sports. It is, indeed, interesting to note that approximately 86% of the total enrollment participated in either intramural or interscholastic sports during the school year.

BOOK REVIEWS

GRIFFITH, C. R., **The Psychology of Coaching.** 213 pages. Scribners; 1926. Price $2.00. **Psychology and Athletics.** 281 pages. Scribners; 1928. Price $2.00.

Dr. Griffith has written two books that make a unique contribution to the literature of coaching. These books present the teaching of the current doctrines in educational psychology in very simple, non-technical language and apply it to the problems met by the coach. The presentation is tempered with an unusual amount of common sense and is written in such a way that the individual with no training in psychology can profit from it almost as much as the more highly trained psychologist. Much of the practical wisdom of a generation of wise coaches is given throughout the books.

"The Psychology of Coaching" takes up the psychological principles involved in the coaching of teams and ably discusses many of the problems of dealing with teams and with individuals. The psychology of the "jinx," of the "yellow streak," and of morale are examples of discussion that should contribute to a greater ability to secure character values from athletic training.

"The Psychology of Athletics" discusses in much greater detail the individual problems encountered in teaching skills and in producing more effective individuals both in athletics and through athletics in life. These books are practical and very simply written, and they deserve a wide audience of readers. The reviewer feels that in subsequent editions the psychological principles underlying the applications could perhaps be stressed a bit more to advantage for the purpose of helping the non-psychologically trained readers to generalize more upon them and be better enabled to extend the use of these principles to problems not touched upon in these books. On the whole, however, these books are very well presented and should be valuable as applied to collateral reading for studies of general and educational psychology as well as for coaches and other physical educators.

A brief bibliography of general texts in educational psychology would be of service to some who, stimulated by these books, would like to pursue the subject further.

C. H. McCloy.

STAFFORD, George T., **Preventive and Corrective Physical Education.** 328 pages. A. S. Barnes & Company, New York, publishers; 1928. Price $3.00.

A phase of Health and Physical Education which is being given increased attention is the prevention and correction of defects. In this book the writer has covered very thoroughly the fundamentals of such topics as physiotherapy, physiology of exercise, body mechanics, malnutrition, constipation and visceroptosis, infantile paralysis, and spastic paralysis, together with a discussion of pathological conditions of the heart and feet. An entire chapter is devoted to athletic injuries. The book is carefully written and well illustrated.

The writer has given considerable thought to the proper relationship of athletics to the broader program of physical education. He points out that true education provides opportunities for the improvement of the mass of students through adaption of materials and methods to individual needs, whereas in athletics only those persons are selected whose achievements are far superior to the average group.

Results of the draft are quoted as evidence that increased attention should be given to corrective exercises. He further states, "only by graduated exercises did those poorly developed and organically weak individuals develop into more vigorous and healthier men." It is possible that the author has made too extensive claims here since a careful survey of draft statistics show that most of the defects found could hardly have been prevented or corrected by exercise either of a group or individual nature. Moreover it would be difficult to prove that graduated exercise alone was responsible for developing those soldiers who were physically inferior. It is just as reasonable to assume that proper diet, coupled with better habits of personal health and community hygiene were of great significance in bringing about this improved physical condition.

On the whole, however, the book is an excellent presentation of the preventive and corrective aspects of health and physical education. It will serve as a valuable text in teacher training institutions preparing specialists in this field.

C. L. Brownell

LOWMAN, C. L.; Colestock, Claire; and Cooper, Hazel, **Corrective Education for Groups,** 521 pp. A. S. Barnes and Company, New York; 1928. illustrated. Price $4.50.

In Part 1 (113 pp.) the authors discuss the facts and implications of postural maladjustments, body types, technique of examination, growth divergencies, principles of exercise, modification of activities and other such topics. Part II (27 pp.) suggests a plan of program differentiation, special equipment for corrective work, and organization of program and of classes. Part III (34 pp.) deals largely with methods. Part IV (168) pp.) gives schedules and descriptions of exercises. Part V (58 pp.) describes corrective games, dances and dramatised movements and suggests additional helps and a bibliography.

The authors—an orthopedic surgeon and two experienced physical educators—present a large amount of material in this volume, much of which will be found valuable, particularly the notes on equipment and parts IV and V, which constitute more than half the book. Some of the other material does not appear well organized for educational use. However, good literature in the field of corrective physical education is so much needed that the book will doubtless have a wide sale, and we think it worth recommending to our teachers for the practical help it will give them.

W. W. H. Mustaine,

BOWEN, W. P., **Applied Anatomy and Kinesiology.** Fourth edition, revised and enlarged; 356 pages. Lea and Febiger; 1928. Price $3.75.

This excellent book represents perhaps the last work done by Professor Bowen before his death. It has been a relatively complete revision with the errors of previous editions corrected and considerable new material added, together with many new cuts. The cuts on athletic form have been brought strictly up to date.

This book is an excellent text book in anatomy for the physical director in so far as muscular anatomy is concerned. It does not take up the anatomy of the viscera or of the pelvic region. The anatomical basis of corrective exercises is very thorough. The sections devoted to the function of the foot and the spine, and the chapters on posture are particularly useful.

This book concerns itself primarily with muscular action and is therefore of particular use to the educator interested in individual gymnastics.

C. H. McCloy.

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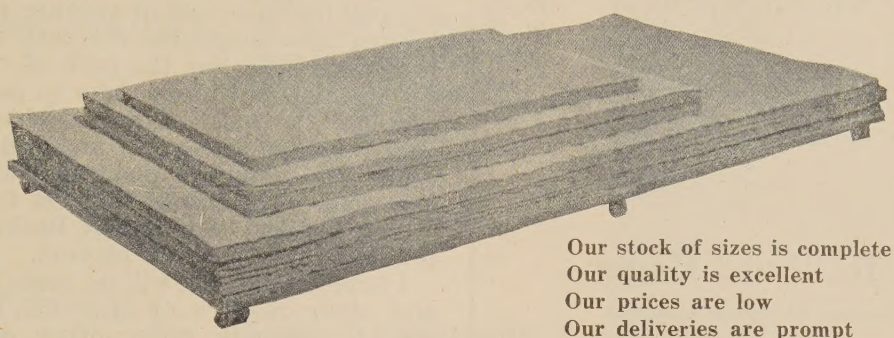

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The Health Counselor Plan for High Schools

(*Concluded from page 6*)

level grows higher, should these problems be handled as personal rather than as class problems, which means that more of the time of the Health Counselor must be given to case work, for which she needs to know social service methods. And class work can center more around Dr. Farrand's 3rd, 4th, 6th, 9th, and 10th health knowledges, which have a bearing on mental health, on sex problems, on prevention of degenerative diseases, on basis for choice of medical advice, and of community action in the public health field.

The special subjects cannot afford to lessen their contributions, but they must be kept informed by the Health Counselor of the status quo of the pupils and build accordingly. If anyone here wishes to know what a cross-section of the secondary schools of this country have done in their work to solve this problem of a comprehensive program, they may read it in the report of the study, "Health Trends in Secondary Education," which may be purchased from the American Child Health Association for $1.00. This publication is more than a report, because in it the various phases of a school health program have contributed their opinions in the light of their experience.

This paper has only dealt with the instructional side and has not even discussed methods, all of which points to the fact that health as the first objective in secondary education is not to be lightly treated, but that on the contrary, we need further studies, investigations and research before we can point with pride to our achievements.

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(*Concluded from page* 21)

some very effective plays of this type. These plays are called by signal from the pivot man and will usually start with the ball in his possession. In Diagram 2, I have shown one of our plays which, however, starts with the ball in possession of another player. The broken line designates the path of the ball, the single solid line the path of the players, the double solid line a fake to pass, the zig zag line the path of the dribbler, and the double broken line a shot at the basket.

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I hope this article will be useful to coaches and other readers of the PENTATHLON. May it partially repay other contributors whose articles I have read and thoroughly enjoyed.

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